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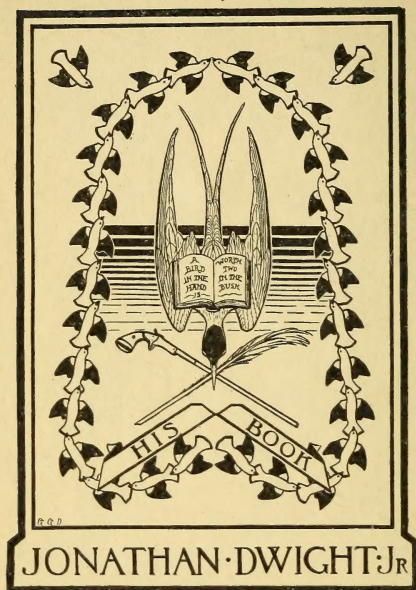
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THE
ORNITHOLOGIST'S TEXT-BOOK

MEH,
BEING REVIEWS

OF

ORNITHOLOGICAL WORKS;

WITH AN APPENDIX,

CONTAINING DISCUSSIONS

ON

VARIOUS TOPICS OF INTEREST.

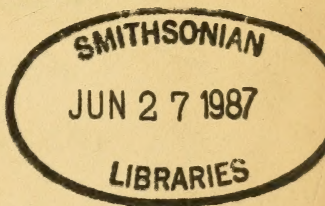
BY NEVILLE WOOD, ESQ.

LONDON:

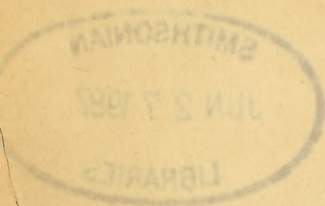
JOHN W. PARKER, WEST STRAND.

MDCCCXXXVI.

1836



W. & W. PIKE, PRINTERS, DERBY.



TO

JOHN LATHAM, M.D.
F.R.S., A.S., L.S., &c.

FOR HIS DISTINGUISHED TALENTS

AS AN

ORNITHOLOGIST,

AND

AS A MARK OF ESTEEM,

THIS VOLUME

IS RESPECTFULLY INSCRIBED

BY HIS SINCERE FRIEND

THE AUTHOR.

PREFACE.

It has long been a complaint among amateur Naturalists, and those who are commencing the study of Natural History, that no account of the works relating to this delightful subject has yet been published. The present volume is, accordingly, intended to supply the desideratum with regard to what may perhaps be considered the most interesting branch of the science, and it will, we hope, and indeed anticipate, prove a useful guide to the Ornithologist in the choice of his books. That it is not so complete as might be wished, especially as regards the less important works of the continental writers, we freely admit, but we think that no British work of importance is omitted.

If we have failed to notice any important works of our continental brethren, we wish it to be clearly understood that such omissions are occasioned by our not having had access to the works, and not by a wilful disregard of their merits.

It may be objected, on the other hand, that we have reviewed several works unworthy of notice, such as the barefaced compilations and "conglomerates" of "Alphabet Rennie," and the *Ornithologia* of Jennings; but we answer that the evil practices of this tribe of "literary *Lestri*" should be exposed.

We have given short notices of the beautiful and expensive illustrative monographs of Vieillot, Desmarest, Lesson, and other French Naturalists, as it is only necessary, with regard to these, to state whether the plates are well or ill executed, and

PREFACE.

whether the descriptions are accurate. But such works as Mudie's *Feathered Tribes of the British Islands*, Selby's *Illustrations of British Ornithology*, Montagu's *Ornithological Dictionary*, and others of this class, require a considerably more minute analysis; and this, accordingly, we have given them. In works of this kind we have frequently given long extracts, which are certainly far better calculated to convey an idea of the spirit of the author than a dry abstract review. We have endeavoured to conduct the whole with perfect impartiality. Whether or not we have succeeded in attaining this desirable object, our readers will be best able to determine.

With regard to the synoptical tables of systems, we have thought it better to give the names of the several groups in French than in English, where the classification was framed by a French Naturalist, and have in many cases added the Latin or scientific terms, in order to point out how well the continental Naturalists have succeeded in giving to each genus a French generic appellation, to which British Naturalists have hitherto paid little or no attention.

In the Supplement we have thrown together some hints for the formation of what would, in our estimation, form a complete work on general Ornithology.

NEVILLE WOOD.

Foston Hall, Derbyshire.

Jan. 1, 1836.

ORNITHOLOGIST'S TEXT-BOOK.

WE commence our notices of ornithological works with the *Ornithology* of Francis Willughby; as he was the first Naturalist who treated the study of birds as a science, and the first who made any thing like a rational classification. His work (folio) was translated, edited, and published by his friend Ray, in 1678. Now although the classification of Willughby can by no means be considered complete, yet it was unquestionably the best that had hitherto been promulgated, and has indeed very great merit, especially when we consider that it was framed about a century and a half ago, with no other assistance than the meagre compilations of preceding authors. The system of Willughby is also without doubt the basis on which the ornithological classification of Linnæus was founded, and it is a curious fact that many of Willughby's genera, which were altered by the great Swede, are now again introduced exactly as restricted by the former author. The descriptions of the habits of birds in this work are full and generally exact; but are occasionally besprinkled with absurdities which should have been beneath his notice. The diseases of birds and their cures, and the methods of capturing and keeping the different species are also fully detailed, and a "Summary of Falconry" concludes the descriptive part of the volume. After this is given a figure (uncoloured) of each bird described, but these are wholly destitute of merit. The young Ornithologist will do well to study this work with attention, but he must sift the true from the false matter.

Synopsis Methodicum Avium, by John Ray, 1713.

We find it our duty to say that the amiable and gentle Ray, whatever he might be in Botany, had very little merit as an Ornithologist, the whole of the system, and also the names of birds used in his works, being the production of his friend Willughby; this is frankly acknowledged by Ray himself, and must therefore be true. Thus if you possess the *Ornithology* of Willughby, it is unnecessary to have the *Synopsis* of Ray. We are sorry to observe that the credit of Willughby's system, and also of his names, is generally most unjustly awarded to Ray, in works on Natural History, at the present day.

Systema Naturæ, by Sir Charles Linné, M.D.
Fauna Suecica, by Sir Charles Linné, M.D. 8vo.

After the publication of Ray's *Synopsis*, no work of importance appeared until the *Systema Naturæ* of Linnæus. The best edition of this work is the 12th, the last which was published by the author, and which appeared in 1766. It is probable that this production has done more to advance Ornithology* than any other of a like nature, increasing the votaries of the science an hundred fold, by the advantages which the simplicity of the system held out to amateurs. This system, although confessedly artificial, is remarkably comprehensive, and the groups are generally very accurately defined. It contains one or two very flagrant errors,

* When we have occasion to mention works which treat of Natural History generally, we shall of course only criticise the ornithological department.

as the classing under the same generic head the perfectly distinct genera *Coccothraustes* (Grosbeak), *Pyrrhula* (Coalhood), and *Crucirostra* (Crossbill), but it was of singular use at that time, and has done much to advance the science. Linnæus may be considered the father of modern Naturalists, and the student of Ornithology must be thoroughly acquainted with the *Systema Naturæ* before he proceeds to the study of more modern and abstruse classifications. We are, however, far from advising any one to *adhere* to the Linnæan system at the present day; that would be absurd, at the advanced state the science has now attained. The system of Linnæus is merely the basis on which all other classifications are founded. A thirteenth edition was published by Dr. Gmelin, after the death of Linnæus, and this was subsequently translated into English, by William Turton, M.D.—*Fauna Suecica* is also indispensable to the Ornithologist.

Voyage to the Islands of Madeira, Barbadoes, Nevis, St. Christopher's, and Jamaica, with the Natural History, &c., by Sir Hans Sloane, M.D., 2 vols. folio, 1707—1727.

Sir Hans Sloane is better known as a liberal patron of natural science, and an extensive collector, than from his writings. In the former capacity he certainly never had an equal. We have not seen his *Voyage*, but according to Cuvier (*Règne Animal*) the plates, 274 in number, are "*mediocres ou mauvaises*."

Natural History of Carolina, Florida, and the Bahama Islands, by Mark Catesby. 1731, folio. 2 vols.

This work is of great use to the Ornithologist, on account of the accuracy of the figures—which are coloured, and two hundred in number—and descriptions. A second edition appeared in 1771, edited by Edwards, the author of a well known work on birds.

Vorstellung der Vögel. Frisch. 1739—63. 2 vols. folio. Berlin.

A work on the birds of Germany, but of no use at the present day; the figures, two hundred and fifty-five in number, being very indifferent, and the descriptions equally meagre. Infinitely superior works have since appeared on the Ornithology of this country.

Natural History of Birds, by E. Albin. 3 vols. 4to. 1738. Three hundred and six coloured plates.

Of no use at the present day.

Natural History of Uncommon Birds, and *Gleanings of Natural History*, by Geo. Edwards. 7 vols. 4to. 1743—64.

These two works may be considered as forming one, the last being merely a continuation of the first. The birds described and figured are placed without any reference to order, and were mostly unknown species. The plates are coloured, and, though somewhat coarse, have a life and character which has perhaps not been surpassed even at the present day. The whole of the figures are drawn and engraved—mostly from living specimens—by

the author, and the work will always be valuable to the Ornithologist.

Des Oiseaux Domestiques, par R. A. F. Reaumur.
2 vols. 12mo.

An exceedingly interesting work on tame birds, interspersed with anecdotes and experiments.

Historiæ Avium Prodromus, by J. T. Klein.
4to. 1750.

It is unnecessary to make particular mention of the system of Klein, as it was adopted by very few, nor is it by any means necessary for the Ornithologist to possess his *Prodromus*. And we may here be allowed to remark on the absurd custom of writing works on Natural History—or indeed any other subject—in Latin. When written in this “*learned* tongue” the contents of the works must necessarily be sealed to all but a few “learned” pedants. At the time when Klein wrote, however, there may have been some excuse for this practice, as only a very few then turned their attention to the Natural Sciences, and these few were generally supposed to have had the *benefit* of a “*sound* classical education.” But as this is no longer the case, there cannot now be the same excuse as there was formerly for writing works on Natural History in Latin. The *modern* languages should of course be taught at every school, and then we may look forward to the time when Latin and Greek, if not entirely abandoned, will at least no longer be considered indispensable to any classes of society,—much less to the students of science. We will, however, postpone this discussion to a future occasion.—See *Analyst*, Vol. III, p. 46.

Nederländische Vögel, by Sepp.

This author had less success as an Ornithologist than as an Entomologist, "his talents being quite unsuited to this department; and his figures have all the stiffness and roughness of badly preserved dried specimens;" but the work is useful as a fauna of the Netherlands.

Ornithologie; ou Méthode contenant la Division des Oiseaux, en Ordres, &c. 6 vols. 4to. 1760, by Brisson.

Ornithologia, sive Synopsis Methodicum sistens Avium, 2 vols. 8vo. 1762, by Brisson.

The descriptions in these voluminous works are remarkable for exactitude, but the figures, which are uncoloured, are very bad. Brisson was the first Ornithologist since the time of Linnæus who ventured to propose a system of his own, and displayed a singular and unwarrantable hostility towards the illustrious Swede. It seems strange that Naturalists, engaged in studying the works of the Creation, should ever stoop to these paltry bickerings, especially when we consider what a wide field they have for observation.—The system of Brisson had its merits, and, amongst others, that of drawing away many individuals from their blind admiration of the *Systema Naturæ*. The chief fault in the scientific part of Brisson's works is, that he sometimes gives only one Latin name to a bird, and sometimes three or more, thus departing from Linnæus's admirable principle of invariably giving a generic and specific appellation to each species. Several new birds were described in the above-mentioned works, which are still useful to the Ornithologist.

British Zoology, by Thomas Pennant, folio, 1766.

The system used in this work is mostly the Linnæan, and the descriptions of habits and manners are tolerably full, and interesting. Many editions of this work have appeared; that of 1812, with woodcuts, is best known. The *British Zoology*, although exceedingly useful at the time of its publication, is *now* by no means indispensable to the student of British Ornithology. Many works have since appeared, with infinitely more detail of the habits and manners of British birds, besides having the advantage of a better system, and good coloured plates.

Genera of Birds, 4to. 1781, by T. Pennant.

This compilation scarcely requires a notice, Pennant's genera being those of Willughby.

Arctic Zoology, by T. Pennant, 3 vols., 4to. 1792.

These volumes contain much interesting detail on every department of Natural History, in the widest acceptation of the term. The work is useful as an Arctic Fauna, and contains good figures. Pennant also published *Indian Zoology*, in one quarto volume (1792,) but this we have not seen.

Histoire Naturelle des Oiseaux, par G. L. Buffon. 1770. Paris.

For eloquence and elegance of style, Buffon stands unrivalled amongst the Naturalists of his country, but the matter can seldom be depended

upon, and the figures are very bad. He was more bent on forming wild and absurd theories of his own—to which his countrymen generally are much addicted—than on collecting “*facts*, fresh from the fields.” Thus his histories degenerate into mere interesting tales, which, though amusing to the general reader, can be of little use to the philosophic Naturalist; and hence the *Histoire Naturelle* cannot with safety be perused by the young Ornithologist, until he has attained a certain proficiency in the science, and learnt to judge for himself. The Crossbill (*Crucirostra*, Meyer,) Buffon considers a *Lusus Naturæ*, and supposes the Woodpeckers (*Picianæ*, Swains.) to be the most unhappy of the feathered race; without reflecting that every living creature is perfectly adapted to its peculiar mode of life, and that were any part of its organization changed, it must inevitably perish. The only way in which the works of this author can be said to have advanced the interests of science is, that it increased the number of field Naturalists in about the same ratio that the *Systema Naturæ* did the cabinet class. The *Histoire Naturelle* may be had in every language and every shape.

General Synopsis of Birds, by John Latham, M.D. London, 1782, 3 vols., and two supplements, 4to.

Latham's *Synopsis* is well known in every part of the world where Natural History is studied, and was undoubtedly the most useful and valuable ornithological work that had as yet appeared, as it contained exact scientific descriptions and figures of every bird then known. The *Synopsis* certainly contains many errors, but the work was, and still is, indispensable to the Ornithologist. Dr. Latham's

primary divisions differ from those of Linnæus, and he introduced fourteen new genera.

Index Ornithologicus, by J. Latham, M.D.
London. 1790. 2 vols. 4to.

This is a list of all the birds then known, and is a useful work for reference.

General History of Birds; by J. Latham, M.D.
Winchester. 1821—4. 10 vols. 4to. 21 gs.

If in the *General History of Birds*, the author had used a more modern classification, instead of adhering to that of Linnæus, this work would unquestionably be the most complete and useful in existence, which is now by no means the case.—The *General History* is merely an enlargement of the *Synopsis*. Consequently, those who possess the latter are under no necessity of giving twenty-one guineas for the former. We think it may with safety be affirmed that no scientific works on Natural History, except those of Linnæus and Cuvier, ever obtained so much celebrity as those of our venerable countryman Dr. Latham, now (1835) in his ninety-fifth year.

Avium rariorum et minus cognitarum Icones et Descriptiones. 1786; by B. Merrem. Leipsic.

This work we have not seen, but it is probably of little or no value at the present day.

Natural History and Antiquities of Selborne;
by the Rev. Gilbert White. 1788. 1789.

This work is well known to every one for the delightful details it contains of the habits and manners of British birds. It is interspersed occasionally with notices of other animals, but the amiable author appears to have paid most attention to the feathered tribes, and we think the volume might almost be termed "*Sketches of the Ornithology of Selborne.*" The *Natural History of Selborne* has passed through a great many editions, but Rennie's is the best. This edition (8vo. 1833) contains notes by Herbert, Sweet, Rennie, and Mitford, and should be in the hands of every one—the general reader no less than the professed Naturalist. All scientific detail is here avoided, and indeed White probably knew very few of the Linnæan names, as we frequently meet with such appellations as "*Passer arundinaceus*," "*Regulus non cristatus*," &c. The work consists of a series of letters addressed to Pennant and Daines Barrington.

Naturalist's Miscellany; by George Shaw, M.D. 1789, 8vo.

Zoology of New Holland; by G. Shaw, M.D. 1794. Several 8vo. Nos.

Zoological Lectures; by G. Shaw, M.D.

Both letterpress and figures in these works are almost entirely purloined from other authors, and are wholly devoid of merit.

General Zoology; or Systematic Natural History, by George Shaw, M.D., F.R.S. 14 vols. 8vo. 1800—1826; continued by Mr. Stephens.

Vols. seven to fourteen inclusive are devoted to Ornithology, and all except vols. seven and eight

are written, or rather compiled, by Mr. Stephens, as Dr. Shaw died shortly after the completion of the eighth volume. The work was scarcely wanted, as, besides being very expensive (£3. 12s. a vol.), the descriptions are almost entirely taken from the *Synopsis* of his more judicious countryman, Dr. Latham. One or more species of each genus is figured (by Mrs. Griffith), but these also, we are sorry to say, are almost without exception copied from other works, with but little care in the selection. The last volume appeared in 1826, with a synopsis of the Quinary System, as drawn up by Vigors, and concludes with a "general index." The genera are neither judiciously arranged or accurately defined in this voluminous compilation, which, although almost indispensable to the Ornithologist, is so only because no better work exists. If some of the first Ornithologists of the present day would unite to produce a good work on general Ornithology, success might doubtless reasonably be expected. All departments, the science properly so called, and the popular descriptions of habits and manners, should be equally attended to, and a coloured figure of each species, with its nest and eggs, should be given, as far as practicable, drawn and coloured from Nature, or carefully selected from the most accurate authors, such as Edwards, Gould, Selby, Audubon, &c.—See the Supplement.

Synopsis of British Birds, by John Walcot, Esq.
London. 4to. 1789.

This work is scarcely deserving of notice, both figures and descriptions being very indifferent. Mr. Graves has also published an illustrative work on British Ornithology, but we have neither seen

it, nor found any mention of it by other Naturalists, except once or twice in Rennie's *Architecture of Birds*, which we shall notice hereafter.—The same may be said of Hayes' *British Birds*, and these two works may fairly be considered undeserving of attention.

Some astonishment might be expressed at our having omitted all notice of Sir Stamford Raffles, but we answer that he, like Sir Hans Sloane, is more known as a liberal patron of Natural Science, and a collector, than as an author. See his *Life*, by Lady Raffles.

Fauna Groenlandica, by Otho Fabricius. 1790.

A very useful work, and the more so on account of its still remaining the sole description we possess of the zoological productions of that country.

Gemeinnützige Naturgeschichte der Vögel Deutschlands, by J. M. Bechstein, M.D. 1791. 3 vols. 8vo. £1.

An excellent work on the birds of Germany, combining scientific detail, and popular descriptions of habits and manners; the second edition is much improved.

Ornithologisches Taschenbuch, by J. M. Bechstein, M.D. Leipsic. 1802. 8vo.

This work is also essential to the Ornithologist. Many new genera were characterised by Bechstein, and his descriptions are always accurate, and even full, for the time at which he wrote.

Cage Birds ; Their Natural History, Management, Habits, Food, Diseases, Treatment, Breeding, and the methods of catching them ; by J. M. Bechstein, M.D. Orr and Smith, Paternoster Row, 10s. 6d. 12mo.

The following passage, from the preface to the first edition, will give our readers some idea of our author's enthusiasm with regard to Ornithology:—

“ If long experience and minute observation on the subject of his work is calculated to gain an author credit, I flatter myself that this will not be denied me, since from my earliest youth I have delighted in being surrounded with birds, and am so accustomed to them that I cannot write at my desk with pleasure, or even with attention, unless animated by the warbling of the pleasing little creatures which enliven my room. My passion is carried so far that I always have about thirty birds around me, and this has naturally led me to consider the best and easiest mode of procuring them, as well as of feeding and preserving them in health. Few amateurs, therefore, are better fitted than myself to write on this subject, and I hope I have done it to the satisfaction of the public.”

The preface to the third edition is as follows:—

“ A new edition of my *Natural History of Cage Birds* having been called for, I have made many additions and improvements in the work, as will appear on comparison. Some have alleged that I have been too diffuse in my descriptions, and others find fault that I have introduced birds difficult to tame, such as the gold-crested wren [Gold-crested Kinglet] and the common wren. In the latter case, at least, the most ample details are excusable, as the birds require more care ; yet I know several amateurs who always have one or two wrens flying about a room, or in a cage, and to let loose so

delicate a little bird as the gold-crested wren always gives great pleasure. Besides, the minutest detail can never, in such cases, do any harm. I have likewise added some foreign birds, several of which have been but recently introduced in this country by any bird dealers."

We may remark, in conclusion, that we have seldom met with any work on this delightful branch of Natural Science which pleased us so well as Bechstein's *Cage Birds*. It appears also to be well translated—probably by Rennie—and is perfectly indispensable to every one who wishes to preserve birds in health for any length of time, in confinement.

History of the Earth and Animated Nature, by Oliver Goldsmith, L.L.D. 1791.

The first edition of this popular work was, we believe, published in 1791; as, however, that edited by Wm. Turton, M.D. (6 vols. 8vo. 1816), is the one in our possession, our remarks will apply to this edition. It is well known to most of our readers that our author was little fitted for writing on Natural History, and that necessity alone urged him to commence his arduous undertaking. The *Animated Nature* is, accordingly, nothing but a compilation, and even as a compiler Goldsmith had but little success. The work is, however, written in a pure and elegant style, and thus, like Buffon's *Histoire Naturelle*, it has attained considerable popularity. It is never referred to by Naturalists, and we would not recommend the young Ornithologist to read it, much less study it, as it abounds with errors in every page, which the Editor has taken little or no pains to correct; nor, indeed, would this be an easy matter, as the whole work

must be entirely re-written, in order to purge it of its numerous errors. Vol. IV is devoted to Ornithology.

Harmonia Ruralis, or Natural History of British Song Birds, by James Bolton. folio. 1794.

The descriptions in this work are tolerably accurate, but the figures—drawn and coloured from Nature, by the author—are of little value. The work is of no use at the present day.

Birds of Great Britain, by W. Lewin, F.L.S. 8 vols. 4to. 1795—1801. Coloured plates by the author.

This is a useful and even a valuable work, as it is the only one with which we are acquainted in which a coloured figure of every British bird is given; these are “engraved from the subjects themselves,” and are generally accurate, especially when we consider that the work appeared forty years ago. A specimen of the egg of each species is also figured, but these are often inexact and badly coloured.—The system is the Linnæan, and the descriptions, which are short and accurate, are written on one side of the page in French, and on the other in English. The chief fault of the figures is, that they are generally too highly coloured, and that a single species is sometimes figured two or three times over, under different names. The frontispiece to the first volume is a curious variety of *Parus major*, shot in Kent, with the mandibles of the bill crossed, as in the Crossbills (*Crucirostra*, Meyer); the *distribution* of the colours is the same as in ordinary individuals, but the tints are much duller. A friend

of ours informs us, that many years ago he remembers to have seen a Blue Tit (*P. cœruleus*) with the mandibles of the bill similarly crossed. This specimen was caught in a trap. We have also seen a Common Fowl with a crossed bill; it had some difficulty in taking its food, and always remained thin.—It would be good practice for the student if he were to mark the plates in this work, where varieties or sexes are multiplied into species, by a reference to Selby's *Illustrations of British Ornithology*, plates and letterpress. He would then find the work of use in his researches, as it is by no means convenient to use Selby's plates for *common* reference.

Transactions of the Linnæan Society. Many 4to. vols.

The *Linnæan Transactions*, as they are usually termed, may here be mentioned, as containing many excellent scientific papers on Ornithology. The two most important ornithological Essays in the whole series are, 1st, "*On the Tracheæ of Birds*," by Dr. Latham; 2d, "*On the Affinities which connect the Orders and Families of Birds*," by N. A. Vigors, Esq. The latter may be considered an explanation of the Quinary System, discovered by Macleay in 1818. This system is undoubtedly the most natural which has yet been propounded, and is admirably elucidated by Vigors in the above-mentioned paper. The *Linnæan Transactions* also contain several highly interesting and valuable papers by Montagu, on the habits and plumage of birds.

History of British Birds, by Thomas Bewick. 1797. 2 vols. 8vo. Newcastle on Tyne.

This work soon attained great popularity; chiefly on account of the admirable wood-cuts and vignettes, although the descriptions are accurate and even interesting. In these he was probably assisted by scientific men. The work has passed through several editions; that of 1826 is generally referred to by Naturalists, but the last (1832) is the most complete. This edition contains a figure of every species that has been killed in Britain, and should be in the hands of every Ornithologist. A few of the figures of birds are by no means characteristic; as those of the Hedge Dunnock (*Accentor modularis*, Cuv.) and Golden-crested Kinglet (*Regulus auricapillus*, Selby). Mr. Dovaston—a friend of Bewick's, and a very pleasing writer—has given a long and interesting account of this celebrated artist in the *Magazine of Natural History*.

Catalogue of the Birds, Shells, and Plants of Dorsetshire, by Richard Pulteney, M.D. 1799.

This *Catalogue*, which is only useful as a local list, is compiled from Mr. Hutchison's *History of Dorsetshire*.

Histoire Naturelle des Oiseaux d'Afrique, par F. Levaillant, 6 vols. folio or 4to. 1799. Paris.

Histoire Naturelle des Perroquets, par F. Levaillant. 2 vols. 4to. and in folio. Paris. 1801.

Hist. Nat. d'une Partie d'Oiseaux de l'Amerique et des Indes, par F. Levaillant. Paris. 1801.

Hist. Nat. des Oiseaux de Paradis, et des Rolliers, suivie de celle des Toucans et des Barbus, par F. Levaillant. 2 vols. grand in-fol. Paris. 1806.

Hist. Nat. des Promerops et des Guépriers, par F. Levaillant. Paris. 1807. folio.

Levaillant was a close and accurate observer of Nature, and his works, although entirely destitute of system or arrangement, must ever hold a distinguished place on the shelf of the philosophic Ornithologist. His descriptions may invariably be relied on, and the figures, though somewhat wanting in finish, are always characteristic. It is unnecessary to make particular mention of Levaillant's works, as all are equally essential to the Ornithologist.

Natural History of British Birds, by E. Donovan, F.L.S. 10 vols. 8vo. London. 1799—1816.

This is a work of little merit, and wholly useless to the Ornithologist. The descriptions are short and inaccurate, and the plates stiff and gaudy.

Ornithological Dictionary, or Synopsis of British Birds. 2 vols. 8vo. and Supplement. London. 1802—1813, by George Montagu, Esq. F.L.S.

This was the first satisfactory work on British birds that had yet appeared, the scientific details being accurate in the extreme, and the descriptions of habits and manners, and also the accounts of tame birds in the author's possession, are highly entertaining, and the student will do well to peruse the work with attention. A second edition appeared in 1831, edited by Professor Rennie, "with a plan of study, and many new articles and *original* observations." Now that there are "many new articles" we fully admit, but think it would be an extremely difficult matter to find *any* "original observations," from the pen of the worthy Professor. As to paper, type, &c. this edition is certainly an

improvement on the first, and we approve the bringing the three volumes into one, but we think the "Plan of Study," "Remarks on the system of Linnæus and Latham," and also those on the "Quinary System and Modern Doctrine of Types, Affinities, and Analogies," might well have been dispensed with. We never could perceive the use of these controversies. The field Naturalists will always undervalue the studies of the scientific Naturalist, and these in return think lightly of the former. The fact is, that both are perfectly essential to the advancement of the science, but the scientific department may perhaps be considered higher than the other, as the one requires a good development of the reasoning faculties—causality and comparison—and the other good observing powers—chiefly individuality. Now, Professor Rennie affects to despise what he terms "cabinet Naturalists," but he certainly does not belong to the other class, having rarely, if ever, recorded a "fact fresh from the fields." He is a mere compiler, and is not much fitted even for this task. The following extract, from the introduction, will plainly show that our compiler is entirely ignorant of the nature of the system he idly attempts to refute:—

"In the necessarily limited space of an introduction, I cannot go much into detail either in explanation of this system, or in stating such objections to it as have occurred to me; but I shall endeavour to show that it rests, so far as I can perceive, on very untenable grounds. 'In natural history,' says Mr. Macleay, 'we have always good reason for suspecting methods,' and still more, I should say, for suspecting principles. The doctrine of *types*, if I comprehend it aright, is one of those suspicious principles, being evidently a shoot from Plato's wild theory of pre-existent ideas, or the archetypes of all things, and more directly borrowed from the

atheistic system of Robinet. His doctrine bears, that Nature's grand aim was to make man, and being incapable of doing so at once, undertook an apprenticeship (*apprentisage*) of experiments, by making various *types* of his several organs; such as the hand-shaped roots of some of the orchis family, the brain-stone coral, and the stink horn (*Phallus foetidus*, Sowerby), of many of which he gives figures. 'A stone,' he says, 'an oak, a horse, a monkey, a man, are only graduated variations of a *prototype* which has begun to be realized by the least possible elements. A stone, an oak, a horse, are not men, but they can be regarded as *types*, more or less conformable to the same primitive design, and they are all the product of the same idea, more or less *developed*.' It was with no little astonishment, that I found the Rev. W. Kirby, a Naturalist of great talent, an accomplished scholar, and a divine of the soundest religious sentiments, for whose works I have a high esteem, not only adopting, but eulogizing this very doctrine, as coming from Mr. Macleay, though he elsewhere rejects it with laudable indignation, as coming from Robinet. 'According,' he says, 'to this opinion' (Macleay's) which seems the most consistent of any yet advanced, and which reconciles facts which upon no other plan can be reconciled, the series of beings is involved in the highest degree, rolling wheel within wheel *ad infinitum*, and revolving, if I may so speak, round its centre and summit—man: who, though not including in himself all that distinguishes them, is still the great *type* in which they terminate, and from which they *degrade* on all sides.' This, indeed, seems almost a translation of Robinet. I am not surely called upon to enter into a serious refutation of such doctrines as these, or to be accused of dealing in unproved assertion, by appealing for their fallacy

to the plain sense of the reader. On the contrary, I am most justly entitled to call for a proof of the assumptions, that a stone has improved itself into an oak, and a horse into a man, or that these degrade from man on all sides."

We think that this extract will make it appear sufficiently plain that the Professor has wholly misunderstood the Quinary system. Rennie gathers that the Quinarians suppose a stone to improve itself into an oak, and a horse into a man, &c., from the simple expression of one group leading through another, and passing into a third; which of course only signifies that one group has an affinity to another; and a species which connects two genera may be said to lead from one to the other. The chain of living beings is unbroken, and consequently each group, of whatever value, passes into that which follows. We think it would be impossible for any one but such as Rennie to interpret this simple expressson into a declaration that one living being is transformed into another. It is the same with the doctrine of degradations. Are not all living creatures inferior to man? and, therefore, if ranged round him in a circle—as is the system of Nature—may they not be said to degrade on all sides, without being supposed to be transformed?—But as Rennie does not understand the system he affects to despise, what benefit can accrue from refuting his fanciful arguments?

Barring the whole of the introduction with which this excellent work is disgraced, we recommend the *Ornithological Dictionary* of the acute and accurate Montagu, to the attentive perusal of the ornithological student. A few interesting remarks on the habits and nidification of birds are inserted into this edition, by the Editor, but, unhappily, they are far from "original," as specified in the title page, being almost wholly copied from a po-

pular work—*Architecture of Birds*, by James Rennie.

Birds of Scotland, by Graham. 12mo. 1806. Edinburgh.

A small work on the birds of Scotland, in verse. The descriptions of habits, nidification, &c. are generally accurate, but we are averse to having scientific works in poetry.

Histoire Naturelle des Oiseaux dorés; ou, à Reflets Métalliques, par L. P. Vieillot et J. B. Audebert. Paris. 1802. folio and 4to. 2 vols.

Histoire Naturelle des plus beaux Oiseaux Chanteurs de la Zone Torride, par L. P. Vieillot. Paris. 1805. folio.

Histoire Naturelle des Oiseaux de l'Amerique Septentrionale, par L. P. Vieillot. Paris. 1807. 2 vols. folio.

Galerie des Oiseaux, par L. P. Vieillot. 2 vols. 4to. Paris. 1825.

Analyse d'une Nouvelle Ornithologie élémentaire, par L. P. Vieillot. Paris. 1816. 8vo.

All these works, which are mostly expensive illustrative Monographs, are essential to the Ornithologist, the plates being generally good, and the descriptions accurate. Vieillot will always rank high amongst the Ornithologists of his country, and has aptly been styled the father of modern French Ornithologists. Every one should possess his *Galerie des Oiseaux*.

Histoire Naturelle des Tangaras, des Manakins,

et des Todiers, par A. G. Desmarest. Paris. 1805. folio.

All the writings of this excellent Ornithologist are deserving of the closest attention. Besides the above work, he has written several articles in the *Bulletin des Sciences Naturelles*, *Dictionnaire d'Histoire Naturelle*, *Journal des Mines*, and other French periodicals of less note.

British Miscellany, by James Sowerby, F.L.S. London. 1806. Vol. I. 8vo.

We have only seen the first volume of this work, and are not aware of any more having appeared. As regards Ornithology it is not of much use, nearly all the birds figured as new or rare species, being merely varieties of those which are well known.

American Ornithology; or Natural History of the Birds of the United States, by Alexander Wilson. 13 vols. 4to. Philadelphia. 1808.

This work is so well known, as almost to render a particular notice or recommendation unnecessary. His descriptions of birds are wholly unrivalled, even at the present day, except perhaps by those of Audubon. The style is vigorous and eloquent, and the descriptions of habits and manners minute and interesting in the extreme. Perhaps there never existed an individual better calculated for observing Nature, and for recording faithfully her wonders, than Alexander Wilson. The coloured figures also are very accurate, although there is a want of finish about them. Well

may we lament the premature death of this great Naturalist, for he died before the completion of his splendid and almost unrivalled work. The four last volumes are by C. L. Bonaparte, Prince of Musignano. Even those who do not possess the *American Ornithology*, must have met with so many extracts from it, that we consider it quite unnecessary to give a specimen of the work. Many editions have appeared—the best by Sir William Jardine, with plates, coloured or uncoloured, and notes by the Editor; price £6. 6s. coloured,—£3. 3s. uncoloured. A cheap edition was published by Professor Jameson in 1831, with a life of the author, but without plates—price 16s. 4 vols. 12mo. Every Ornithologist must of course possess this work.

Observations on the Nomenclature of Wilson's Ornithology. By Charles Lucien Bonaparte. 8vo. pp. 352. Philadelphia. 1826.

“Of the high utility of this necessary appendix to Wilson's admirable production we have already spoken, while noticing several of its parts, as they successively appeared in the Transactions of the Academy of Natural Sciences of Philadelphia. We need not, therefore, now repeat our commendations. It will be sufficient to express our gratification at finding that the scattered papers, in which was contained so much important information, have been collected into a volume, and have thus been rendered more easily accessible. Devoted expressly to the correction and revision of the nomenclature of the *American Ornithology*, its leading object is to place that standard work on a level with the actual state of science. With this view the synonymy is enlarged and continued, so

as to embrace the latest observations. Its acquisition is consequently essential to the possessors of the original work. To the general Ornithologist it will also be desirable on account of the numerous and just observations with which it is interspersed, relative to the arrangement of birds, and to the value of the groups into which they have been divided."—*Zool. Journ.*

Taschenbuch der Deutschen Vögelkunde, and *Naturgeschichte der Vögel Deutschlands*, by Drs. Meyer and Wolf. Francfort. 1810. 2 vols. 8vo.

An excellent and original work on the birds of Germany. The first volume is by Dr. Wolf, and contains the land birds. The second volume, containing the water birds, is by Dr. Meyer. The Ornithologist should possess this work.

Prodromus Mammalium et Avium, by J. C. G. Illiger. Berlin. 8vo. 1811.

We have not seen Illiger's *Prodromus*, and cannot therefore give any account of it. Illiger was a Professor of Berlin, and died young.

Fauna Orcadensis, or Natural History of the Quadrupeds, Reptiles, and Fishes of Orkney and Shetland, by the Rev. George Low. 4to. Edinburgh. 1813.

The Ornithologist should not be without this work, as a fauna of these islands assists in determining how far the various species of native and migratory British birds extend to the north.

Handbuch der Naturgeschichte, von Joh. Fried. Blumenbach. Neunte Ausgabe. Göttingen. 1814.

This work is of little use to the Ornithologist at the present day, being nothing more than a catalogue, with very short descriptions, and not always accurate. It has, however, passed through a great number of editions, and was translated into English in 1825, by R. T. Gore, Surgeon. The system is a modification of the Linnæan.

Histoire Naturelle Générale des Pigeons et des Gallinacés; par C. J. Temminck. 3 vols. 8vo. Amsterdam et Paris. 1813—15.

Although this work is mostly compiled, yet it is compiled in a very creditable manner. The descriptions of habits and manners, which are extremely full and generally accurate, are also replete with interest. The author likewise gives a full account of the most approved methods of keeping, breeding, and rearing domestic Pigeons and Fowls. Nor are the scientific details omitted. These the learned author gives with his usual accuracy. In fine, we may safely recommend these excellent and interesting volumes to the attentive perusal of the Ornithologist. The Pigeons have since appeared in folio, with splendid coloured plates, by Madame Knip.

Manuel d'Ornithologie, ou Tableau systématique des Oiseaux qui se trouve en Europe, par C. J. Temminck. Paris. 1815. 2 vols. 8vo.

Temminck is the first Ornithologist since the time of Linnæus, who promulgated a system worth

attending to. In simplicity it almost rivals that of the illustrious Swede, and is infinitely its superior in exactitude and preciseness. It is the classification we had ourselves adopted, before we had investigated the merits of the circular system, as illustrated and explained by those excellent Naturalists, Swainson and Vigors, in the *Northern Zoology*, *Linneæan Transactions*, *Zoological Journal*, and other valuable works, which we have perused with equal attention and pleasure.—Temminck employs sections—or subgenera—where he supposes his genera to require some division. The Warblers (*Sylvia*, Lath.), for instance, he divides into *Becfins riverains* (*Salicaria*, Selby), and *Becfins sylvains*, which comprises the rest of Latham's *Sylvia* (*Sylviadæ*, Vig.)—The scientific details and the tables of synonymes, in this useful work, are almost always correct, but with regard to habits and manners, Temminck had less success. The Ornithologist will do well to possess himself of this work, nor indeed could he easily do without it. Another edition of the *Manuel d'Ornithologie* appeared in 1820, 2 vols. 8vo.

Règne Animal, distribué d'après son Organisation, par G. Cuvier. Paris. 1817. 4 vols. 8vo.

The *Règne Animal* is the only systematic work since the *Systema Naturæ*, which includes the whole range of Zoology. The zoological system of Cuvier—which has erroneously been termed *natural*—has certainly far less merit than those of Linnæus and Temminck, and its fame was, accordingly, short-lived. Cuvier's classification is founded on the organisation; and here lies its chief defect; a system founded on any one character, must necessarily be defective, if that character is invariably

adhered to. Linnæus's distinguishing character was the bill, that of Vieillot, Klein, and others, the claws, and all these systems, whatever each may be as a whole, contain flagrant errors in some of the minutiae. The student will, nevertheless, find it useful to acquaint himself with the system of the great French Naturalist, as its very defects may have the use of proving to him the fallacy of any system in which the series is single.—The best edition is that of Griffith; of this edition the birds (3 vols.) may be had separate.

The Quinary System:—discovered by W. S. Macleay in 1818.—In a work on the rise and progress of Ornithology, we think it our duty to make a few remarks on a system which, if not “*the Natural System*,” is at least founded on the principles of Nature. The first and fundamental principle inculcated by Macleay and his disciples is, that all nature moves in a circle, and that the series of beings is unbroken; and, secondly, that each group and each species has a double affinity. Every one of the higher groups has a binary division, viz. the normal or typical, and the aberrant, the former containing two, and the latter three, of the five subdivisions of which each of the higher groups is composed. We cannot here explain the doctrine of *analogy*—which is wholly distinct from affinity,—but we can give an instance of it:—the Hedge Dunnock in the *Sylviadæ*, represents the House Sparrow in the *Fringillidæ*; that is, the one bears the same relation to the *Sylviadæ* that the other does to the *Fringillidæ*, and hence they are said to bear an analogy to each other. The whole zoological series, before arranged in a simple chain, according to this system revolves in an almost infinite number of circles around man, from

whom they may be said to degrade on all sides. We shall not here proceed further, as a very slight sketch is all that the limits of this little work can afford. We will conclude our necessarily brief and imperfect notice of this admirable system by observing, that no one who supposes the Quinary System, or any part of it, to lead to atheism, can rightly understand its principles.—As well might it be affirmed that the science of Phrenology tends to materialism.

Compendium of British Ornithology, by J. Atkinson. London. 1820. 8vo. 10s. 6d.

A work of no use at the present day. The system is the Linnæan, and the descriptions are short.

Natural History of the Birds of New South Wales, by W. J. Lewin. London. 1822. Thin folio.

We do not possess this work, but, according to the first Ornithologist of the present day, the plates “are of permanent value,” and the work of course useful.

Compendium of Zoology, being a Description of more than 300 Animals. New Edition. London, 1818. Sm. 8vo.

This volume is entirely compiled, and ranks very low even as a compilation, being full of the most flagrant errors, of which the following may be taken as a sample:—“The Hedge Sparrow is a smaller variety of the bird above described [the House

Sparrow], and is called in French, *Friquet*." We might easily produce dozens of equally glaring errors, but we prefer cautioning our readers against perusing the book at all. Only a few species are described in this volume—of what we suppose the author would call "the more interesting species."

Animated Nature, or Elements of the Natural History of Animals. Illustrated by Short Histories and Anecdotes; and intended to afford a Popular View of the Linnæan System. For the use of Schools. By the Rev. W. Bingley, A.M. London. 1814.

Animal Biography, or Popular Zoology; Illustrated by Authentic Anecdotes of the Economy, Habits, Instincts, and Sagacity of the Animal Creation. By the Rev. W. Bingley, A. M. 4 vols. Fifth edit. London, 1820. Sm. 8vo.

These are extremely interesting popular works, and although occasionally sprinkled with the errors incident to most popular publications, we think our readers will derive both pleasure and advantage from their perusal. They contain descriptions and figures of two or three species of every genus, with scientific details of each. The wood-cuts are generally well executed and original. These works will always remain favorites with the public, on account of the vast fund of anecdote which they contain, and from their simple and pleasing style.

Zoological Illustrations, by William Swainson, Esq., F.R.S., F.L.S. 8vo. 1820. W. Wood, London.

This work consists of "original figures and descriptions of new, rare, or interesting animals,

selected chiefly from the classes of Ornithology, Entomology, and Conchology; and arranged on the principle of Cuvier and other modern Zoologists." It might perhaps almost be deemed presumption to offer any remarks on a work emanating from the pen and pencil of undoubtedly the first Ornithologist of the day, but we feel it our duty to give our readers *some* idea of the contents of the *Zoological Illustrations*. It will be sufficient if we mention that the coloured figures of birds then were, and still are, almost unrivalled. They are certainly not surpassed by the highly-lauded plates of Audubon—of which hereafter—but are perhaps equalled by those of Gould. The figures are beyond conception lovely and delicate, and it only remains for us to remark, that every philosophic Ornithologist must possess the *Zoological Illustrations*, if indeed they are now to be had.

Naturalist's Guide, for collecting and preserving subjects of Natural History, particularly shells; by William Swainson, Esq., F.R.S. and L. S. W. Wood, London. 1822. 12mo. 5s. 6d.

An interesting and highly useful guide to all those who wish to collect and preserve objects of Natural History, in tropical as well as in temperate climates, and we recommend it to the special attention of the ornithological collector.

Fauna Boreali Americana, or Zoology of North America, by J. Richardson, M.D., and Wm. Swainson, Esq. London. 4to. 1831. Vol. II. £4. 4s.

The second volume of this splendid work treats

of birds, and is chiefly by Swainson, with coloured plates, by the author. Of Swainson's talents as an ornithological painter, we have already spoken, and his success in this department is so well known as to require no further notice. In the *Northern Zoology*—as it is termed for the sake of brevity—the Quinary System is most admirably and lucidly expounded, and the affinities of the higher groups are truly, in the words of Selby, “traced with the hand of a master.” We cannot speak in too high terms of admiration with regard to this splendid national production. It is undoubtedly the best work of its kind that has ever appeared, and will, we expect, long remain so. It must ever hold a distinguished place on the shelf of the philosophic Ornithologist, and may always be consulted with safety, pleasure and advantage.

Preliminary Discourse on the Study of Natural History, by William Swainson, Esq., A.C.G. 12mo. 6s. Longman and Co. London. 1834.

To give an idea of the merits of this volume, we shall transcribe the notice of it which appeared in the *Magazine of Natural History* for April, 1835:—

“Mr. Swainson's *Discourse* is the most lucid, complete, and masterly introduction to Natural History that has hitherto been published in any language. The author was, before the appearance of this volume, deservedly regarded as the greatest Zoologist Britain has produced; he may now fairly claim to be placed on an equality with the most esteemed of any age or any country. The plan of the work is simple, the arrangement of the subject excellent, and the phraseology vigorous and flowing. The volume before us is the first of a series from the perusal of which we anticipate much

pleasure as well as instruction ; and we most cordially recommend the series to such of our readers as desire to obtain a general knowledge of Zoology. It is with great pleasure that we see the great masters in science thus devoting their talents to the task of instruction, instead of the more selfish occupation of hoarding up stores of knowledge available only to themselves."—We conclude by recommending the volume to the attentive perusal of the student of Zoology.

Treatise on the Geography and Classification of Animals, by Wm. Swainson, Esq., A.C.G., 12mo. 6s. Longman and Co. London. 1835.

The geographical distribution of animals is a subject hitherto little attended to, and is ably treated of in this useful and delightful volume. The principles of the Quinary System are also explained at some length, and we recommend this volume as well as the *Discourse* to the attentive perusal of the ornithological student ; as soon as he has mastered all that is contained in these excellent and invaluable volumes, he may consider himself a good Ornithologist, in the general principles at least. The plan of these books appears to us so original, and the execution of them so masterly, that they cannot fail to be of the greatest use to the Zoologist, and of the most extended service to this branch of Natural Science.

The following is a plan of the zoological volumes to be published in Dr. Lardner's *Cabinet Cyclopædia*. The two first have already appeared, and are noticed above :—

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| Zoology.—14 vols. Vol. I. <i>Prelim. Discourse.</i> | } | By W. Swainson,
Esq. F.R.S., &c. |
| Vol. II. Geography and Classification of Animals. | | |
| Vol. III. Quadrupeds. | | |
| Vol. IV. Ornithology. | | |
| Vol. V. Conchology. | | |
| Vols. VI. & VII. Popular Introduction to Entomology. | | |
| Vol. VIII. Reptiles, Fish, Polypes, &c. | } | By Mr. Swainson
and J. O. Westwood, Esq. |
| Vol. IX. Systematic arrangement of Insects. | | |
| Vols. X. and XI. Habits and Instincts of Animals. | } | By Wm. Swainson, Esq., A.C.G. |
| Vol. XII. Menageries. | | |
| Vol. XIII. Taxidermy, Bibliography, &c. &c. | | |
| Vol. XIV. Man. | | |

This series, when completed, will, we anticipate, be the most useful and delightful work on Zoology that has yet appeared.

Swainson has also written the zoological part of Murray's *Cyclopædia of Geography*, lately published, in 12 Nos., forming one thick 8vo. volume; and various interesting and useful papers in scientific Journals. He has likewise written a long and highly interesting review of Audubon's splendid plates, in the *Magazine of Natural History*, Vol. I. p. 43, which our readers will do well to peruse. We will conclude our necessarily brief notices of the admirable works of this great Zoologist by observing, that no one can call himself a good Ornithologist at the present day, without a thorough and intimate acquaintance of every thing that ever proceeded from the pen and pencil of SWAINSON.

Treatise on British Song Birds, by Patrick Syme, Esq. 8vo. 16s., or 12mo. 12s. Edinburgh. 1823.

Syme's *Treatise on British Song Birds* is an excellent and useful little work, "including observations on the natural habits of song birds, their manner of incubation, &c., with remarks on the treatment of the young and management of the old birds in a domestic state." The plan of the volume is good, and well executed. It is embellished by fifteen engravings, coloured or uncoloured, which are generally good. We think, however, that the author might have included many other British song birds worthy of notice, especially as the Spotted Starling (*Sturnus varius*, Meyer)—which can scarcely be considered a songster—has found a place in his excellent *Song Birds*.

British Warblers, by Robert Sweet, F. L. S. Simpkin and Marshall. London. 1823—1832. 8vo. 16s. 6d.

When first we saw the *British Warblers* advertised, and noticed in the *Magazine of Natural History*, we expected to have seen a complete Monograph of that most lovely of all families, the *Sylviadæ*:—so far, however, is this from being the case, that not near all the British species are included in it. The figures are in general very bad, especially that of the Brake Nightingale (*Philomela lusciniæ*, Swains.), and the descriptions short and meagre in the extreme. The figure of the Garrulous Fauvet (*Ficedula garrula*, Blyth) is somewhat more characteristic than the rest; but while the accompanying flower (a lilac) has all the freshness of Nature, the bird has evidently the roughness of a bird long kept in confinement. It

is, however, perhaps scarcely fair to criticise this little work so severely, when we find—as we shall hereafter do—that Selby has by no means succeeded in the delineation of this beautiful and interesting family. But, on the other hand, it is our cool and decided opinion that no part of the *British Warblers*—the preface, of five pages, perhaps excepted—can be of the slightest use either to the Naturalist, or to those who keep birds in confinement. For the latter purpose, Bechstein's delightful and useful *Cage Birds* (reviewed in our p. 15) is by far the best work in existence. Mr. Sweet kept most of the different kinds of *Sylviadæ* in confinement many years, and observed them closely in their natural state; he *might*, therefore, have furnished a delightful volume on the Warbler family, which is now far from the case. Nor can we compliment the author on his style. It may be supposed by some that we are thus criticising the work of Mr. Sweet on account of the impossibility of his replying to our observations—the author having died in January 1835—but this is not the case, as we shall fully prove in the sequel, by criticising far more severely the productions of certain compilers who are at present in the full glory of their short-lived career.

Sur les Fonctions du Cerveau, par F. J. Gall, M.D. 6 vols. 8vo. Paris, 1822—1825.

Dr. Gall is well known to every one as the discoverer of the most splendid and practicably useful of the sciences—Phrenology. But the learned author also shows an intimate knowledge of the habits of birds and other animals, on which his remarks are highly interesting. He was likewise extremely fond of keeping birds in confinement, and

of observing the habits and manners peculiar to each. The chief fault of the work is prolixity, to which the continental writers in general, and the French in particular, are so much addicted. This, however, can perhaps scarcely be considered a fault in a work dedicated to the explanation of a new theory, and we cordially recommend the perusal of Gall's *Fonctions du Cerveau* to all classes of readers.

Tableau élémentaire d'Ornithologie, par Mons. Gérardin. 2 vols. 8vo. Paris. 1822.

We believe M. Gérardin's *Tableau* forms a tolerably good elementary work on Ornithology, but it can easily be dispensed with at the present day.

Philosophy of Zoology, or a General View of the Structure, Functions, and Classification of Animals, by John Fleming, D.D. 2 vols. 8vo. Edinburgh. 1822. £1. 10s.

This work should be attentively perused by every philosophic Ornithologist, although it is interspersed in various parts with the crude, fanciful, and pernicious doctrines of the old Metaphysicians.

History of British Animals, by John Fleming, D.D., F.R.S. & M.W.S. Edinburgh. 1828. 8vo.

This work is a useful compendium for the general Naturalist, but is of no use to those who intend to study any one department of Natural Science in particular. The descriptions are very short, and the system extremely objectionable. Swainson has

some excellent remarks on the Dichotomous System—the one adopted by Fleming—in his *Treatise on the Geography and Classification of Animals*, and these we shall make no apology for transcribing:—

“ Binary or dichotomous systems, although regulated by a principle, are among the most artificial arrangements that have been ever invented. This great principle upon which the advocates of such tables insist, simply consists in arranging animals according to their *positive* and *negative* characters; as, for instance, birds with *perfect* wings, and, secondly, birds with *imperfect* wings; and so on. Now this mode of arrangement is, perhaps, the most simple, and the most easy of comprehension, of any that has been devised; and was, therefore, the earliest in use. It likewise seems to offer a ready clue to the discovery of any particular species or genus, because the student has no occasion to look beyond the table before him: he need not trouble himself about affinities or analogies, for he has merely to see what peculiar character his specimen *has*, and what it *has not*.—When, therefore, his object is either to ascertain the recorded name of a species, or whether it be described or undescribed, he will often find this sort of catalogue useful. But the misfortune of the binary methods of arrangement is this, that they may be multiplied *ad libitum*. As their advocates profess not to pursue any one principle in the selection of their characters, it follows that we may have a hundred different binary systems, each good in its way, but each different from the other. One entomologist may choose to divide all insects into such as have wings, and, secondly, such as have none. Another, looking to the manner of feeding, may make his two groups depend upon one having jaws, the other none. A third, con-

sidering metamorphosis as the corner-stone of his system, may divide all insects into such as undergo this transformation, and such as do not. Hence, it follows, that every one may form a binary system of his own, provided he closely attends to, and 'possesses distinct conceptions on, positive and negative characters'; the only requisite, as its advocates affirm, for this mode of arrangement. As for preserving the natural affinities of groups, it is by no means necessary to the systems in question that any regard should be paid to such matters; their advocates, very judiciously, do not insist on such considerations, nor do they attempt to point out in what way nature gradually passes from one group to another."

On the Cuckoo and on Migration, in Philosophic Transactions, by Edward Jenner, M.D. 1797—1824.

On the Cuckoo, in *Manchester Transactions*, by Mr. Blackwall, 1824; and in *Magazine of Natural History*, Vol. VIII, by various writers. 1835.

In these several Journals will be found a full elucidation of the habits, nidification, &c., of that extraordinary bird, the Grey Cuckoo (*Cuculus canorus*, Linn.) The celebrated Dr. Jenner first explained the peculiar habits of this bird, which were little known before his time. The student will read these papers with pleasure and advantage.

Illustrations of British Ornithology, by P. J. Selby, Esq. Land Birds. Edinburgh. 1825. 8vo. 10s. 6d.

Illustrations of British Ornithology, by P. J. Selby, Esq. 2 vols. 8vo. Edinburgh. 1833. £1. 1s. 2d. edition.

The most masterly work, on the whole, that has yet appeared on the birds of Britain. The first edition is on the system of Temminck, with one or two improvements, as, for instance, the removing from the genus *Sylvia* of Latham the Common Wren and Goldcrested Kinglet. The descriptions of habits, nidification, &c., are sufficiently full for a systematic work, and always correct. In this edition only the land birds were described. Thus much for the letterpress;—the plates now claim our attention. These are executed on “a scale hitherto unattempted”—elephant folio—and are all drawn and coloured from Nature, by the author. Every individual of the families *Falconidæ* and *Strigidæ* would make a perfect picture of itself, so beautifully and correctly are they executed. Few of the others come up to these, in our opinion, and we are sorry to add, that the talented author has entirely failed in the delineation of the *Sylviadæ* and *Fringillidæ*. We regret this the more, as the figures of the Falcon and Owl families have certainly never been equalled—even by Gould and Audubon. Let us now proceed to an analysis of the second edition of the *Illustrations*.

The system here followed is the Quinary, as drawn up by Vigors, and as improved by Swainson; the first volume containing the land birds (*Raptores*, *Insessores*, and *Rasores*), the second the aquatic (*Grallatores* and *Natatores*). The distinguishing characters of the several orders, tribes, families, subfamilies, and genera, are given in a concise and clear manner, which is indeed indispensable in a system so complicated as the Quinary. The author has evidently a full know-

ledge of the system he adopts, and his work is altogether by far the most masterly we have seen, on our native Ornithology. The plates of water birds appeared at about the same time as the letter-press of the second edition.

This work is not without its faults. For instance, we frequently find the same English generic names used for species belonging, according to the system he adopts, to entirely distinct genera:—thus he has, the Snow Bunting (*Plectrophanes nivalis*), and the Yellow Bunting (*Emberiza citrinella*). Why not use Snowy Longspur for the first of these? Again, to every one of the *Strigide* he applies the English generic name *Owl*, while in Latin he divides it into no less than seven genera! We wish it, however, to be distinctly understood that we do not object to Selby's dividing the family into seven genera—that being in perfect accordance with Nature—but to his inconsistency in using one generic appellation in English where there should obviously be seven; and *Strix*, as the typical group of the family, can alone be termed *Owl*. Observations such as these may be, and have been, (see *Analyst*, No. 11) deemed frivolous, and it may be objected that the English names of birds belong to our mother-tongue, and are in no way connected with the objects of science. But if, as we have elsewhere proved (*Analyst*, No. 10), this carelessness with regard to English names is calculated to confuse the student, and greatly to increase the difficulties of science, what then can we think of him who, blind to the interests of philosophical science, and the improvement and welfare of future generations, obstinately refuses to admit the smallest change, merely because that change, slight as it is, would cost *him* some trouble? Happily, however, for the cause of science, its advancement does not, as for-

merly, depend on the fancies of any single individual, and the change, which we first suggested in the *Analyst*, No. 10, is undoubtedly gradually effecting, as the pages of the *Magazine of Natural History* will amply testify.—We will now refer our readers for further observations on this much neglected subject, to the *Analyst*, Nos. 10 to 14.

Selby's work is of course indispensable to every Ornithologist.—Several typographical errors occur in the synoptical tables at the beginning of each volume, and these the student will do well to correct, from the body of the work, as, otherwise, they are apt to mislead the inexperienced.

Wanderings in South America, in the years 1812, 16, 20 and 24; with original instructions for the perfect preservation of birds for cabinets, by Charles Waterton, Esq. London. 1825. 4to.—Second edition, London. 1828. 8vo. 10s. 6d.

A most delightful, original, and popular work, written in a simple and extremely pleasing style. The adventures of the author, herein related, in combats with caymen, snakes, and other venomous and dangerous reptiles, are truly wonderful, but are, without doubt, wholly and substantially true. In the frontispiece is figured a nondescript creature, which, from the features and comparative elevation of the forehead—indicating some portion of intellect—would almost lead one to suppose it to be a cross between a man and some of the *Simiadae* (Monkey family)—conjecture, however, is of little use in this case, and Mr. Waterton has hitherto kept the real state of the case an entire secret, which has only been imparted to a single individual besides himself.—We think that the following interesting and wonderful account of the

effects of the wourali poison, used by the Indians for the poisoning of their arrows, will be acceptable to such of our readers as do not possess these exquisitely delightful *Wanderings*:—

“During this time [three years after Mr. W. had arrived in England], several experiments were made with the wourali poison. In London, an ass was inoculated with it, and died in twelve minutes. The poison was inserted into the leg of another, round which a bandage had been previously tied a little above the place where the wourali was introduced. He walked about as usual, and ate his food as though all were right. After an hour had elapsed, the bandage was untied, and ten minutes after death overtook him.

“A she-ass received the wourali poison in the shoulder, and died apparently in ten minutes. An incision was then made in its windpipe, and through it the lungs were regularly inflated for two hours with a pair of bellows. Suspended animation returned. The ass held up her head, and looked around; but the inflating being discontinued, she sunk once more in apparent death. The artificial breathing was immediately recommenced, and continued without intermission for two hours more. This saved the ass from final dissolution; she rose up, and walked about; she seemed neither in agitation nor in pain. The wound, through which the poison entered, was healed without difficulty. Her constitution, however, was so severely affected, that it was long a doubt if ever she would be well again. She looked lean and sickly for above a year, but began to mend the spring after; and by Midsummer became fat and frisky.

“The kind-hearted reader will rejoice on learning that Earl Percy, pitying her misfortunes, sent her down from London to Walton Hall [the seat of Mr. W.], near Wakefield. There she goes by the

name of Wouralia. Wouralia shall be sheltered from the wintry storm ; and when summer comes, she shall feed in the finest pasture. No burden shall be placed upon her, and she shall end her days in peace."

In a letter with which the amiable, talented, and enterprising Mr. Waterton has lately favored us, (dated July 28, 1835), the following passage occurs:—"The ass Wouralia is alive at the age of twenty-four ; and is more wicked and mischievous in breaking through fences than any goat you can imagine."

Now we cannot exactly comprehend how the restoring the ass's suspended animation could possibly destroy the power of the poison, and prevent its further action, as it had already circulated throughout the system. When the ass was inoculated, it was not of course want of breath, but the virulence of the poison which threatened its destruction ; and, one would suppose, that when this had once pervaded the frame, nothing on earth could save the unhappy creature. The mere healing of the external wound could clearly be of no avail. We wish it, however, to be distinctly understood that we have not the smallest doubt as to the truth of a single sentence in the *Wanderings*, but we should be much obliged to the author if he would clear up this point for us, through the medium of the *Magazine of Natural History*, which teems with Mr. Waterton's fresh and delightful papers on the habits of the feathered race.

Interesting as are the notices of birds in the *Wanderings*, their utility is greatly lessened by his always using the Indian names without explanation.

In conclusion we recommend this work, in common with the other writings of this author, to the perusal of all classes of readers. At the

end of the volume are some excellent directions for the stuffing of birds, which are the more valuable, as the author is well known to be almost unrivalled in the art of setting up ornithological specimens. Mr. Waterton has lately communicated to us several interesting particulars relative to the *Wanderings*, but these we are not at liberty to divulge.

Waterton has also written several articles on the habits of birds, in the *Magazine of Natural History*. Amongst others we particularly admire the paper on the "*Habits of the Barn Owl*," Vol. V, p. 9.

Two Letters to Professor Jameson, by Charles Waterton, Esq. 8vo. Wakefield. 1835.

These we have been unable to procure; Mr. Waterton informs us that every copy disappeared a few days after they were published. "The Passenger Pigeon, the Vulture's power of smelling, and a certain hurricane, are the chief subjects" of the second letter. *Mag. Nat. Hist.*, Vol. VIII, p. 244.

Ornitologia Toscana, by Dr. Savi. 1827. Pisa. pp. 302.

All that we know of this work is its title and time of publication; but it is probably by no means indispensable to the Ornithologist.

Illustrations de Zoologie, par R. P. Lesson. Livraison 1 à 13, 6s. 6d. each. Paris.

Histoire Naturelle des Oiseaux Mouches, par R. P. Lesson. 8vo. £4. 5s. 17 livraisons. Paris.

Histoire Naturelle des Colibris, par R. P. Lesson. 8vo. Paris. £3. 5s.

Histoire Naturelle des Trochilidées, par R. P. Lesson. 14 livraisons. £3. 10s.

Histoire Naturelle des Oiseaux de Paradis. 5s. per livraison, par R. P. Lesson.

Nouveau Recueil de Planches coloriées d'Oiseaux, par C. J. Temminck. 91 livraisons. 4to. £35. 1820.

All these expensive works, which are mostly Monographs, are illustrated by beautiful coloured plates, and should find a place on the shelf of every philosophic Ornithologist.—With regard to the *Planches Coloriées* of Temminck, we have deviated from our usual plan of giving the several works of each Naturalist together. In this case it could not have been otherwise. The work is somewhat expensive, but, in our opinion, not dear, as the figures are characteristic, and well coloured.

Manuel d'Ornithologie, ou description des genres et des principales espèces d'oiseaux; par R. P. Lesson. Paris. 2 vols. 18mo. 1828. 7s. 6d.

Although Lesson's *Manuel d'Ornithologie* is by no means so useful a work as that of the same title by Temminck (reviewed p. 28), yet the Ornithologist should not be without it. Complete works on the birds of any one country are always of more use than those which include some species from all parts of the world. Nor do we understand what M. Lesson means by "*principales espèces d'oiseaux*." The work commences with a synopsis of the principal systems which have been promulgated.

He has given a synopsis of the systems of the following authors :—Linnæus, Brisson, Latham, Lacépède, Duméril, Meyer, Illiger, Cuvier, Vieillot, Temminck, Blainville, Vigors, Latreille, Blainville (*développée par M. Lherminier*), besides a "*projet de classification des oiseaux*," by Lesson himself. The descriptions in this work are short and accurate, and, had the author included all the birds then known, it would indeed have been a useful Manual to the Ornithologist. Lesson has succeeded very well in the French names of birds, generally giving a distinct French generic appellation to each genus, thus rendering the science far more simple, and, consequently, its acquisition easier.

Magazine of Natural History, and Journal of Zoology, Botany, Mineralogy, Geology, and Meteorology; conducted by J. C. Loudon, F.L., G., and Z. S. Longman and Co. London. 1828—1835. 8 vols. 8vo.

The *Magazine of Natural History* was the first English Journal devoted to the natural sciences, except the *Zoological Journal*, and deserves a special notice in a work on the rise and progress of Ornithology, as there can be but little doubt that it has conducted more to this end than any work that has hitherto appeared in the English language. The number of new and interesting facts contained in each volume is immense, and the only *fault* we find with the work is, that we can never cast our eyes over the index, in looking for any particular head, without finding a dozen interesting facts referred to, which it is almost impossible to pass over without perusing; and thus we frequently lay the volume on the shelf

without finding the article we had originally intended to refer to. The number of individuals that this invaluable Magazine has turned to the study of Nature, must be very great, and, without its agency, what an enormous number of facts would never have seen the light ! The Magazine is, however, in our opinion, too small and too dear (50 pages for 2s.) As the work is so popular and widely circulated, we think Mr. Loudon could well afford to give his readers at least twice the number of pages at the same cost, thus giving two volumes in the year instead of one. We also suggest that the reviews of new works should be more detailed, those in the *Magazine of Natural History* being generally very meagre.—Every Ornithologist must of course possess the whole of this work, which is, we hope, already in the hands of by far the greater number of our readers.

Zoological Journal. Edited by N. A. Vigors, Esq. and other eminent Naturalists. 1824—1835. 5 vols. 8vo.

This Journal may here be mentioned, although we do not much admire it, nor do we think it has much to do with the rise and progress of Ornithology ; the papers on this subject being “few and far between.” The scientific Ornithologist should, however, by no means be without it, on account of the valuable papers it contains by two of our most eminent Ornithologists—Swainson and Vigors. Some of the supplemental plates are very beautiful, but the price both of these and of the letter-press entirely prevents its having anything like a wide circulation, and, even at this price, it does not seem to answer ; as, from 1829 to the present time, only a single volume has appeared !

Ornithologie Provençale, par Polydore Roux. 1828. Marseilles. Each Livraison 7s. 6d.

This work consists of descriptions and coloured figures of all the resident birds of Provence, entirely omitting those which are migratory. It is to consist of fifty parts. We are not aware whether or not it is brought to a conclusion, but what we have seen are good.

Illustrations of Zoology, by James Wilson, Esq. Blackwood, Edinburgh. Cadell, London. Atlas 4to. Each part 16s.

For a review of part of this work, we shall make no apology for extracting that which appeared in the *Magazine of Natural History* for 1831 (Vol. IV, p. 261) both because it will serve as a review of the whole work, and because we entirely agree in the opinions therein expressed:—

“These Nos. (viii and ix) complete the first volume of this work, which, in our estimation, is too splendid and costly to have much, we had almost said any, influence in forwarding the study of Natural History. Mr. Wilson writes so well and agreeably, that it is to be wished he would undertake to compose a book of size and price moderate enough to permit of its circulation among those lovers of Nature who (happily circumstanced) have to labour for their luxuries, and have no notion to barter their moderate gains merely for fine paper and print, and pretty engravings. The approbation of the class of readers alluded to is, perhaps, as gratifying as the praises of the saloon, [and far more so in our opinion.]

No. viii commences with a spirited and elegant figure of the grey American Wolf, the finest plate,

with one exception, in the whole collection; and it is explained by eleven large pages of letterpress, written in Mr. Wilson's best manner. This variety of Wolf is very common on the American continent north of Canada, and is found as far northwards as man has been able to penetrate; varying somewhat in size, according to the latitude of its localities. The two following plates are devoted to the male and female of Richardson's Grouse (*Tetrao Richardsonii*,) discovered by Mr. David Douglas among the mountainous districts of the river Columbia, and other parts of the Rocky Mountains, in North America. The Scarlet Ibis, in the plumage of the first year, forms the subject of the other plate.

"The two first plates in No. ix are really out of place in a work like this, destined for the drawing-room, and into which ladies may be presumed to look without danger. They are pictures of the fore and hind feet of the great Ourang Outang of Sumatra; faithful to Nature we are assured and do believe, but abominably ugly. The Great Auk (*Alca impennis*) forms a good subject for plate 35. This large and rare water bird is found along the shores of Iceland and Greenland; it occurs occasionally among the Feroes, and has once or twice been observed in the Orkney Islands. Two instances are recorded of its being driven on the British coast. Its 'true sphere of action is the water, through which it swims and dives with extraordinary power and rapidity; and where its short wings, entirely useless for the purposes of flight, become efficient locomotive organs when used as oars or fins beneath the surface. Its powers of swimming and diving exceed, indeed, those of almost any other species of the feathered tribe. It has been seen cresting the waves during the prevalence of the most fearful storms, or shooting through the raging surf with the rapidity of an arrow.' The

last plate in the number we do not like: it represents a very large cone, which is described for the first time, and named *Conus Nicollii*."

Ornithologia. Second edition, 1829, and *Pleasures of Ornithology*, by James Jennings. 12mo. 15s. 1828.

We never had the misfortune to meet with a book so full of errors—both of the author and printer—as the *Ornithologia*. We do not admire the plan of introducing science into poetry at all, but never did we behold anything less like either poetry or science than in this work, and we certainly never met with anything more unpleasant than Jennings's *Pleasures of Ornithology*. We should have considered such a work beneath our notice, as it is impossible it can have the smallest connection with the advancement of Ornithology, had we not been desirous of preventing so gross a violation of the Muse for the future. As a specimen of the work, we select, at random, the following lines "to the Cuckoo:"—

" Thou monotonous Bird ! whom we ne'er wish away,—
Who hears thee not pleas'd at the threshold of May ?
The advent reminds us of all that is sweet,
Which Nature benignant, now lays at our feet ;—
Sweet flowers—Sweet meadows—Sweet birds, and their loves ;
Sweet sunshiny mornings, and sweet shady groves ;—
Sweet smiles of the maiden—Sweet looks of the youth,
And sweet asseverations, too, prompted by truth ;
Sweet promise of plenty throughout the rich dale ;
And sweet the Bees' humming in meadow and vale ;
Of the Summer's approach—of the presence of Spring,
For ever, sweet Cuckoo ! continue to sing.
Oh who then, dear Bird ! could e'er wish thee away ?
Who hears thee not pleas'd at the threshold of May ?

“ The House Sparrows, Chaffinches, noisy became ;—
 But their notes, void of melody, always the same.
 Sea Eagles and Buzzards, and Ospreys, were there—
 Those who give of their nests to the Grakles a share.
 The Hover Hawk came, too, tho’ loth to renounce
 His strong inclination on Pigeons to pounce ;
 On his librating wing he was oft seen apart,
 And appear’d on his prey ever ready to dart.
 There were Ringtails and Lanners, and Gos-Hawks, a few ;
 And the Falcons, like aides-de-camp, round about flew ;
 The Kite, too, slow moving, was seen ’midst the host,
 Many Fulmars and Razorbills came from the coast.
 Some Pheasants were there, too, in robes of bright dye ;
 The Rooks, e’er gregarious, came soaring on high ;
 Those whom soon will science instruct us to know,
 By their *white-yellow* beaks from the black of the Crow.”—

Although our author appears to have been in a tolerably *sweet* humour towards the commencement of his lines, yet, long before the conclusion, we might expect to hear him exclaim—

“ But as my lines now *hum-drum* come,
 Not Noah I am sure, of *yore*, could with all his *lore*,
four more pour.”—MIRROR, Vol. 25.

We had intended to have given a specimen of the *Pleasures of Ornithology*, but we find it utterly impossible to drag our pen over lines so totally devoid of poetry.—Alas ! how sadly must the eminent Poets and Naturalists, whose names we find on the list of subscribers, have been disappointed on perusing the pages of *Ornithologia*—if indeed they had patience to proceed beyond the first page. Is it possible to conceive such men as Sir W. Jardine, General Hardwicke, Thomas Bell, Children, Crabbe, Dr. Horsfield, Dr. Latham, Sabine, Southey, Sweet, Vigors, or Yarrell, gravely sitting down to read such trashy pages as those of *Ornithologia* and *Pleasures of Ornithology* ? The original cost of this book is fifteen shillings. Will our readers be

surprised when we inform them that it may now be had anywhere for two shillings?

Gardens and Menageries of the Zoological Society delineated. Vol. II. London, 8vo.; edited by E. T. Bennett, Esq.

The above work consists of descriptions and figures in illustration of the Natural History of the living animals in the collection of the Zoological Society, the drawings being by William Harvey, and engraved by Branston and Wright. It is published with the sanction of the Council, under the superintendence of the Secretary and Vice-Secretary of the Society. The second volume treats of birds. The descriptions are interesting, and the figures highly characteristic. Upon the whole, the work may be considered rather as ornamental than useful, but it is an excellent popular book on Ornithology.

Atlas des Oiseaux d'Europe, pour servir de complément au Manuel de Temminck; par Mons. Werner. Paris. 8vo. Livraison 1 à 26. 6s. each. 1828.

We lately ordered two *livraisons* of this work, but our bookseller informs us that the work is not to be had in parts. As we were by no means willing to hazard procuring the whole, we can give no account of it. The plates are probably not well executed. The figures may be had uncoloured, at 3s. 6d. a number. We understand that the latter numbers have much fallen off in merit.

Systema Avium. Auctor Dr. Joannes Wagler.
Pars prima. Sm. 8vo. pp. 412. Stuttgard. 1827.

“ Although perfectly unpretending in outward appearance, this little volume may rank in effect among the most important and desirable that have recently been published. With compilations we have indeed been overwhelmed, but there has scarcely occurred a single work, embracing the whole of any extensive department of Zoology, to which the epithet original could be justly applied. Manuals especially appeared to have become the exclusive property of the mere heaper together, without discrimination and without examination, of the labours of other men. In the present instance the author has taken a much higher ground, and the plan which he has pursued reflects credit on his judgment and on his industry. He has endeavoured to see for himself the specimens which others had described, and to describe also those which others had not possessed. Into the body of his work he has rarely introduced a species which he had not personally observed, and he has very properly placed it within the power of every one to verify his accuracy, by referring throughout, except in the case of the more common birds, to the collections in which they are respectively preserved. From these sources he has brought together a very considerable number of species, which he has carefully described and attentively collated with the chief ornithological works. The doubtful species, and those of uncertain location, are appended at the end of each genus, and the distinction is thus strikingly made between those parts of his System for which Dr. Wagler is himself responsible, and those which rest only on the authority of others.

“Of this valuable work the commencement alone has yet appeared. It is without arrangement, but a mode of printing is usually adopted which will enable its possessor hereafter to distribute the genera according to his own views of their affinities. At present it may be regarded as a collection of Monographs, forty-six of which, including the extensive genera, *Picus*, *Columba*, *Ardea*, and *Charadrius* [of Linnæus], are given in the first part. It is printed in small type, and in double columns, and contains as much matter as would have formed a respectable quarto, if the usual mode of displaying synonyms had been had recourse to. One objectionable practice may be pointed out in the frequent changes of generic appellations which occur throughout the book. It is surely better, on all occasions, to employ a name which has been universally received, although it may chance to be inapplicable to some species of a genus, than to create confusion by discarding it, and by inventing a new one.

“In his *Promium*, Dr. Wagler gives a rapid sketch of the present state of Ornithology, as connected with collections and with the works to which reference is most frequently made. The latter he characterizes with freedom and judgment. He also states that a continuation of his *System* will appear almost immediately, and that he has ready for publication a Natural History of Birds, in which he proposes to explain his views relative to their arrangement and affinities.”—*Zool. Journ.*

This excellent work has since been continued, but the above will serve as a review of the whole.

Resume d'Ornithologie, par Mons. Drapiez.
Paris, 1829. 18mo.

This is, we understand, considered a good elementary book at Paris, but we have many better in our own language.

Journal of a Naturalist, by Knapp. Second edition. London. 1829. 12mo.

This is indeed a fresh and delightful volume, and has long since become deservedly popular amongst the lovers of Nature. The notices of habits of birds are truly delightful, and fully equal to those of White of Selborne. We shall extract Knapp's account of the Hedge Coalhood (*Pyrrhula vulgaris*), for, whilst it will give our readers an idea of the plan and spirit of his *Journal*, we shall at the same time be enabled to criticise some of the opinions therein expressed:—

“The bullfinch (*loxia pyrrhula*) has no claims to our regard. It is gifted with no voice to charm us; it communicates no harmony to the grove: all we hear from it is a low and plaintive call to its fellows in the hedge. It has no familiarity or association with us, but lives in retirement in some lonely thicket ten months in the year. At length, as spring approaches, it will visit our gardens, an insidious plunderer. Its delight is in the embryo blossoms wrapped up at this season in the bud of a tree; and it is very dainty and curious in the choice of this food, seldom feeding upon two kinds at the same time. It generally commences with the germs of our larger and most early gooseberry; and the bright red breasts of four or five cock birds, quietly feeding on the leafless bush, are a very pretty sight, but the consequences are ruinous to the crop. When the cherry buds begin to come forward, they quit the gooseberry, and make tremendous havoc with these. I have an early wall

cherry, a mayduke by reputation, that has for years been a great favourite with the bullfinch family, and its celebrity seems to be communicated to each successive generation. It buds profusely, but is annually so stripped of its promise by these feathered rogues, that its kind might almost be doubted. The orleans and greengage plums next form a treat, and draw their attention from what remains of the cherry. Having banquetted here awhile, they leave our gardens entirely, resorting to the fields and hedges, where the sloe bush in April furnishes them with food. May brings other dainties, and the labours and business of incubation withdraw them from our observation.

“The idea that has been occasionally entertained, that this bird selects only such buds as contain the embryo of an insect, to feed on it, and thus free us of a latent colony of caterpillars, is certainly not correct. It may confer this benefit accidentally, but not with intention. The mischief effected by bullfinches is greater than commonly imagined, and the ground beneath the bush or tree, on which they have been feeding, is commonly strewn with the shattered buds, the rejectments of their banquet; and we are thus deprived of a large portion of our best fruits by this assiduous pillager, this ‘pick-a-bud,’ as the gardeners call it, without any redeeming virtues to compensate our loss. A snowy, severe winter makes great havoc with this bird. It feeds much in this season upon the fruit of the dog-rose, ‘hips,’ as we call them. When they are gone, it seems to pine for food, and is starved, or perhaps frozen on its roost, as few are observed to survive a long inclement winter. But it is not the buds of our fruit-bearing trees only that these destructive birds seek out; yet in all instances I think it will be observed that such buds as produce leaves only are rejected, and those which contain the

embryo of the future blossom selected; by this procedure, though the tree is prevented from producing fruit, yet the foliage is expanded as usual; but had the leaves, the lungs of the plant, been indiscriminately consumed, the tree would probably have died, or its summer growth been materially injured: we may thus lose our fruit this year, yet the tree survives, and hope lives, too, that we may be more fortunate the next. The Tartarian honeysuckle (*lonicera Tart.*) and *Corchorus Japonicus*, when growing in the shrubbery, are very commonly stripped of their bloom by bullfinches: the first incloses many separated blossoms in its calyx before expansion, and in that particular is analogous to the buds of icosandrious trees in the garden; and the full-petaled swelling bloom of the latter affords a fine treat for their feasts; but we may permit these pretty birds to banquet here, though, if we expect a supply of summer fruit, we must unsparingly drive them away from the branches of our frugiferous trees. The blossoms of the peach, nectarine, and almond, I have never observed to be injured by these birds: the sparrow will pick away the buds of trees against walls when they frequent such places, but, with this exception, I know none but the bullfinch which resort to that food as a regular supply."—p. 159—162.

Now the Hedge Coalhood (vulgarly Alp, Bullfinch, Nope) is a great favourite with us; we consider it rather too sweeping a charge to say that it "has no claims to our regard," and Mr. Knapp is certainly in error when he declares it "gifted with no voice to charm us;" that it "communicates no harmony to the grove," we are willing to admit, as the song is so low as to be inaudible at a short distance. But it is sweet and plaintive in the extreme, although it has been noticed by very few authors. Selby and Mudie mention it,

and Rennie has recorded it in the *Ornithological Dictionary*, but the latter doubtless had it from Selby. We ourselves have heard it, but not often, although we have, for several years, paid particular attention to the habits and haunts of this charming bird.

In our opinion, the Hedge Coalhood's having "no familiarity or association with us," is one of its greatest charms. To follow a family of these birds in the gloomy thickets and woods to which they are so partial, or to hear its plaintive call-note in the distance, answering to its mate, is peculiarly delightful to the Ornithologist, especially as there is yet much to be ascertained with regard to its economy.—Although we have frequently caught the Hedge Coalhood in the act of devouring the buds of our plum and cherry trees, yet we never either apprehended or experienced any material damage from this cause. We indeed incline to the opinion of many Naturalists, of its being wholly beneficial to fruit trees. We grant that it always singles out the best trees as the scene of its labours, but then may we not well suppose that the insects also choose the choicest trees for their depredations? and that the Hedge Coalhoods are chiefly observed on these on account of the numbers of noxious insects or caterpillars lodged in the buds? We think—supposing our conjecture to be true—there are few who would not rather have their crop of fruit spoiled by so handsome a bird as the Hedge Coalhood, than by a caterpillar which is seldom or never to be seen, or, if visible, by no means a delectable object. We have often reflected that so far from being entirely destructive to fruit trees, the Hedge Coalhood is extremely beneficial to them, by plucking off a certain number of buds where the crop is superabundant; as, though it will occasionally entirely strip a single tree of its buds

in two or three days (in which case we may suppose the buds to have been infested with caterpillars), yet it does not, *in general*, remain long at the same tree. We think it might easily be proved—and experience has hitherto supported our assertion—that every one of the *Sylviadæ* and *Fringillidæ* do incalculably more good than harm. We shall, however, fully discuss this point at a future opportunity.

In fine, we heartily recommend the delightful *Journal of a Naturalist* to the perusal of every lover of Nature.

Figures of the Parrots, by Mr. Lane. 1831.

We have seen this splendid work, but have not sufficiently examined it to be able to decide on its merits. We are told, however, by an eminent Ornithologist, that “every scientific institution and public library ought to possess it, as being, next to Audubon’s, the most beautiful and *masterly* work, delineating birds, ever published in Britain.” This is indeed high praise, from a high quarter. Another splendid illustrative work on the *Psittacidæ* has lately been published by Lear.

British Naturalist, by Robert Mudie. London. 1830. 12mo. Second edition, 1835. Whittaker and Co. 12s.

These delightful volumes were originally published anonymously, and profess to be “Sketches of the more interesting productions of Britain and the surrounding sea, in the scenes which they inhabit; and with relation to the general economy of Nature, and the wisdom and power of its Au-

thor." It is astonishing in how short a time the author of the *British Naturalist* attained the popularity he now enjoys. In the beginning of the year 1830 he was wholly unknown to the public as an author, and now he is unquestionably the first authority in everything relating to the haunts and habits of British birds. Every Ornithologist should possess the *British Naturalist*.

Popular Guide to the observation of Nature, by R. Mudie. London. 1832. 12mo. 6s. 6d. Whittaker and Co.

Although this charming little volume contains little directly relating to Ornithology, yet the student will find it a great help to him in his observation of Nature. Some of our author's opinions and theories are extremely anti-phrenological, but it enters not into our province to notice these errors.

Feathered Tribes of the British Islands, by R. Mudie. London. Whittaker and Co. 2 vols. Post 8vo. 1834. £1. 8s.

We have given short notices of the other works of this author, in order to be enabled to do full justice to this, his best and most important. If Mudie had only written the *British Naturalist*, his name would have lived, but now he will be ranked amongst the most eminent field observers of this or any other country. The *Feathered Tribes* is indeed an exquisite work, and unquestionably the best that has yet appeared on the habits of our native birds.—In short, it is only second to those of Wilson and Audubon. We are extremely sorry that our author has so restricted himself in his

histories, for, although these are three or four times as full and accurate as those of any preceding author, yet it is evident—as Mudie himself informs us—that he has limited himself in many of his accounts. This is the more to be lamented, as the author's original design, of compressing the whole into one pocket volume, was entirely frustrated. We hope that in the second edition, which is shortly* to appear, the biographies will be greatly enlarged. Mudie is the most accurate observer of Nature, who has yet written on British Ornithology—Selby excepted, and *he* treats not exclusively of habits—and consequently the *Feathered Tribes* deserves a distinguished place on the shelf of the philosophic Ornithologist. In order to give our readers some idea of the plan and spirit of this invaluable production, we shall extract, almost at random, the whole account of some one species, from the *Feathered Tribes*, from the *British Zoology* of Pennant, who was hitherto considered a popular writer, and from Lewin, of the same species, in order that our readers may compare the description of Mudie with those of the other authors. It may be supposed that we have extracted a description in Mudie's best manner, but this is by no means the case. We think more highly of the accounts of the Green Woodpecker (*Picus viridis*), the Longtailed Tit (*Parus caudatus*), the Golden Eagle (*Aquila aurea*, Will.), Wood Lark (*Alauda arboræ*), some of the Buntings (*Emberiza*), &c. &c., but our choice was made, as before stated, almost at random. We shall commence with the account of Pennant, next proceed to that of Lewin, and, lastly, to that of Mudie, and, if the reader fails to experience some of the enthusiasm of our author, on perusing the latter account, he is little fitted to become a field Naturalist:—

* In January, 1836.

“The WATER OUZEL.

“This bird frequents small brooks, particularly those with steep banks, or that run through a rocky country. It is of a very retired nature, and never seen but single, or with its mate. It breeds in holes in the banks, and lays five white transparent eggs adorned with a fine blush of red. The nest is constructed in a curious manner, of hay and fibres of roots, and lined with dead oak leaves, having a portico, or grand entrance made with green moss. It feeds on insects and small fish; and as Mr. Willughby observes, though not web-footed, will dart itself after them quite under water.

“Its weight is two ounces and a half; the length seven inches one quarter; the breadth eleven; the bill is narrow, and compressed sideways; the eyelids are white; the head, cheeks, and hind part of the neck are dusky, mixed with rust colour; the back, coverts of the wings, and of the tail also dusky, edged with bluish ash colour; the throat and breast white; the belly ferruginous, vent feathers a deep ash colour; the legs are of a pale blue before, black behind; the tail short and black, which it often flirts up, as it is sitting.”—*British Zoology*, ed. 1812, Vol. I, p. 398—9.

The above is a little, but not much, shorter than the average of Pennant's descriptions, but that which follows is about one-third longer than Lewin's average:—

“WATER OUZEL.

“*Sturnus cinclus*, LIN. Syst.—*Le Merle d'Eau*, BRISS. Orn.

“The length of this bird is not more than seven

inches and a half, and its breadth eleven inches. The bill is narrow, flattish, and a little bent at the point; its colour is black: the eyes hazel; the eyelids white: upper part of the head and neck deep brown: back and shoulders dark lead colour spotted with white: tail and wing coverts dark lead colour: quill feathers deep brown: chin and fore part of the neck white: breast orange colour: belly and thighs brown: vent white: legs dusky. In young birds the belly is white.

“Linnæus places the Water Ouzel in the genus *stare*; and indeed it bears considerable resemblance to the Starling, in the flatness of its bill, and the shortness of its tail. But I have thought it advisable to class the Ouzels by themselves, as an intermediate link between the Stare and Thrush genus; since they seem to form a gradual passage from one to the other, in the order in which they are here placed, which will appear evident from a view of the figures.

“This species is very solitary, and is found in the more northern parts of England, in the neighbourhood of streams, living on insects and small fishes. The latter it takes by diving and running under water after them, contrary to the habit of land birds. It makes a nest on the ground, on the banks of rivulets, of hay and dried fibres of roots, lining it with dead oak or other leaves, and making an entrance or porch to it with moss. The eggs are five in number; for which see the plate.”—*Birds of Great Britain*, Vol. II, p. 56.

“The DIPPER (*Cinclus*).

“There is only one British species of Dipper; but it has so many peculiar characters, that it cannot be properly included in any other genus, as there is no other British bird that much resembles

it in shape, in colour, or in habits. The bill is slender, with a slight bend upwards, the mandibles bent inward at the edges, and the upper one margined and very slightly hooked at the tip. The head is small, and the forehead remarkably low; the body short and compact, the wings very short and rounded, the tail also short, but very stout and strongly fortified by coverts. The whole is what one would call a 'dumpy' bird, but there is an expression of great energy and activity about it. Its plumage also is remarkably thick and close, resembling that of the water birds. Like these, it is amply supplied with oil for its feathers; and, though a considerable time in the water, the plumage on the living bird does not become wet. The head, back, and sides of the neck are deep brown; the rest of the upper part is black, with some variations of brownish grey. The tail feathers and quills are quite black. The throat, chin, and breast, are white, passing into reddish brown about the middle of the belly, and becoming gradually deeper and blacker towards the end of the tail. The bill is dark brown, the irides brownish yellow, and the feet yellowish grey. The sexes are like each other in their markings, only the brown on the head of the female is darker, and the white on the breast less pure. The young birds have that part of the head and neck grey which is brown in the old birds; and they have the under part white almost to the vent, but marked with grey and yellow on the portion which afterwards becomes brown. They are, of course, seen with the plumage of the changeable parts in all its intermediate stages; and, as it may change differently in different birds (as is the case in all birds that change much of their plumage either with age or with the seasons), there may be very different markings even in the

same brood in the autumn; but probably there are distinct species, or at least, varieties.

“When the bird is standing in its usual position of quietude, the length from the point of the bill to that of the tail is not more than five inches and a half, of which the bill and tail take two inches and a half, measured on the horizontal line, so that the body of the bird, in that position, is shorter than that of any other species of equal weight. The weight is two ounces and a half. The curve along the under side is, however, nearly nine inches.

“The Dipper inhabits more romantic places than those that are the almost exclusive haunts of any other British bird; and its manners taken altogether are among the most singular. It is not confined to any particular latitude, being found near the Channel, in Wales, in the mountainous parts of the centre of the island, and also in the north. Cold and heat seem indifferent to it, so that it can be near water which is not frozen. The ravines on the slopes of the mountains where the perennial streams have worn themselves deep and rugged channels through the strata, with here an opposing rock, there a dimpling pool, and in another place a brawling rapid, with loose stones, overturned trees, *ne plus ultra* precipices, and all the *et ceteras* which annoy while they astonish a guideless stranger in such places, are the favourite haunts of the Dipper. The bird flits before him from stone to stone chirping, and with a wing so apparently helpless, that he imagines it unfledged, utterly incapable of gaining the sky, of which a mere stripe appears over head, and thus a ‘something,’ which he can easily catch and carry home as a triumph of his victory over the wild. As he gives chase, with all the confidence of one who drives deer into a *tinchal*, or Ducks into a decoy, the Dipper flits on from stone to stone, flirting its

tail, and ever and anon jerking round as if half astonished, half inviting. So onward they fare, till they come to a bolder and tougher stratum which has obstructed the stream, but at the same time given it fall and force to scoop out a pool below, which though it boils where the cascade plunges (or rather where it rises again), is placid compared with the brawlings that have been passed. The water merely laves a beach of clean pebbles, the rocks on the other side are 'sky high,' without footing even for a bird; and the *breast*, over which the water dashes, seems too high for a thing so hopping and badly winged. The bird halts on the beach; and forward he rushes, hat in hand, to the capture; but the wet stones are treacherous, end-long he falls, dips himself, and rising sees the hat which was to capture the bird, whirling round and round in the eddies. The bird too, has vanished—it is 'a sprite' to wile him into peril. But it soon 'bobs' to the surface, at the lower end of the pool on the other side, with its feathers dry without any shaking off of the water, and leaping first on one stone and then another, it descends the ravine with the same nonchalance that it ascended. To recover the hat is a much more arduous matter than to lose the bird; but that too may be accomplished with one of the long suckers of hazel which grow from the tangled and gnarled stool on the bank, though if the hold be not taken warily and kept carefully, there may be a second dipping—and yet no Dipper to boast of.

"The Dipper is, in fact, a very curious bird, and it is more gratifying to watch the manœuvres of one, than to be in possession of the bodies or skins of fifty. Its food is water flies, water larvæ, water insects, worms, and dragon flies, water beetles, and, in short, a variety of animals and animal matters found in the waters. The fry of the trout and

salmon, while still in their cradle pools, numerous as motes in the sun, and each not an inch long, form a supply for it, and its young while these are in the nest. Nor is it at all chary of the nests of the fishes,—of those nests under the sand and gravel, each containing thousands, to form and fill which the fish ascend as far as they can by the help of the autumnal floods, and the nests (or rather ‘plantations’) of young, sprout up in the spring, like young onions in a garden. While the water is unfrozen, the sun acts upon these, and they pass through their stages; so that while the Thrushes, with which the Dipper has sometimes been associated in systems, are frozen out on land, the Dipper feasts in plenty under the water.

“The Dipper catches part of its food standing on land, and some even on the wing, as well as floating on the surface of the water; but it also catches a considerable part under the water, and the water is its retreat from terrestrial danger. It cannot skim the water so well as if its feet were webbed. Wings, though they help a web-footed bird in running along the water, as may be seen in the case of a Duck or Goose, are of less use for progressive motion along the surface, if there are not webbed feet to act as fulcra. But the Dipper walks into the water, or lights on it from the wing, and in either way gets under the surface, and rises, descends, moves laterally, or appears to walk (actually does walk) along the bottom; in short, has almost the same command of itself in that singular element for feathers, as other birds have in the air.

“A question has been raised (I do not say among ‘those out o’ their wits,’ because there are ‘impossible cases,’ in that problem), how the Dipper can contrive to keep ‘beneath a fluid so *infinitely* more dense than itself.’ That is a strange

use of the word 'infinitely,' unless *infinitely small* be meant. An Owl to an Owl's bulk of air, is a stone to a pound, as compared with the Dipper's bulk of water to the Dipper; and if birds rise and descend in the air at pleasure, by the motions of their wings, it is only reversing those motions to enable them to descend or keep themselves down in water. The compression of three feet of water is nearly two pounds and a half on the inch of the feathers, and that, when they are unruffled, as they are in the Dipper, will bring them to very nearly the specific gravity of water. The difference of specific gravity between the bird and the water, is indeed so trifling, that very little effort suffices to move it in any direction, upwards, downwards, or laterally. Birds do not fly upon the principle of specific levity, as with equal wings the heavy bird flies best; they fly because they strike the air more forcibly in the opposite direction to that in which they wish to go, and, under water, the Dipper does just the same: if it wishes to go down, it strikes upward the wings and tail; if to come up, it does just the reverse. The only difference is, that the wings are held 'recovered,' as running birds use them, and that gravitation has even less to do in the matter than in flying. Any one who has ever seen a Dipper under water, or has the slightest knowledge of the mere elements of mechanics, can understand the whole matter in an instant. The Dipper is, indeed, often adduced as an instance of the beautiful simplicity of animal mechanics. The curious habits of the bird will perhaps be an excuse for this digression, which, after all, is more apparent than real.

"From its not being solely dependent upon atmospheric temperature for its food, the Dipper is, considering the upland character of its haunts, really an early bird. It sings in January, and its

note, which is very sweet, and peculiarly varied, may be heard before the frost has relented on the banks between which the stream of its habitation runs.

“The nest is also begun early in the season, and considerable labour and ingenuity are bestowed upon it. It is large for the size of the bird, formed of such materials as the ravine or other banks of the stream furnish, covered over with a sort of dome, and having an opening in the side. It is usually placed but a little above the highest level of the water, and the water is generally high from the spring rains and floods about the time that it is building. The angle between two fragments of stone, or between an old root and the bank, is no uncommon place for it. Externally it is generally of moss, which the humidity of the place keeps partially green, so that it looks like one of the natural mossy tufts; internally it is lined with more dry matters,—leaves or fibres, as the situation may best afford. The first brood is fledged in May; but as the birds have a perennial pasture, they have two or three in the course of the season. The eggs are not more than five, and of a beautiful white. [There are, no doubt, exceptions; but the eggs of many birds partake of the colour which the breast of the male has in the breeding season.] The young Dippers grow fast, are great feeders, and are incessantly chirping in the nest, in the absence of the parent birds. It does not appear that the Dipper inhabits situations so high as that the *running* waters are liable to be frozen over in ordinary seasons, though it comes farther down in the winter,—not to the wide and slow rivers, however, for these are apt to be close, while the brawling ones are clear. A pair of Dippers with their nest are given in the vignette of this volume.”—*Feathered Tribes*, Vol. I, p. 281—6.

After this extract, we consider it quite unnecessary to add anything more; we will, however, give our readers one more short quotation, to show that, though Mudie's descriptions are infinitely fuller and more accurate than those of preceding authors, he has been obliged to rein himself in, in most of them. After about seven closely printed pages on the Golden Eagle—Lewin gives about one-fourteenth of this quantity—he says:—"But I must leave her to her haunts, apologizing to the reader, that I am obliged to confine my notice to a few desultory pages, which is as much out of Nature as cooping up the living bird in a cage. In Nature, the Eagle requires a mountain, and if ever it be my good fortune to afford her a volume of description, she *shall* spread her wings."—Vol. I, p. 122.

We understand that a second edition of the *Feathered Tribes* is now in preparation.

Natural History of Birds, by R. Mudie. Orr and Smith, London. 1834. 18mo. 4s. 6d. pp. 408.

This is, beyond all question, the cheapest book that ever issued from the British press. We have 408 closely printed pages for four shillings and sixpence, besides a great number of wood-cuts, representing birds, and parts of birds, and these are always well executed. The book is a kind of treatise on the physiology of birds, with remarks on their classification. It originally appeared under the article "bird" in Partington's *British Cyclopædia*, most of the ornithological articles in this work being by Mudie.* The *Natural History of Birds* should be in the hands of every one, the

* We understand, also, that several of them are from the pen of our talented friend, Mr. Blyth.

general reader as well as the philosophic Ornithologist. It is also a very fit book for young persons, and we know several very young children who, since they have possessed the *Natural History of Birds*, will scarcely read or even look into any other book. Mudie has likewise published a book entitled "*First Lines in Zoology*," and, very lately, "*The Heavens*," but these we think it unnecessary to notice. The system of Cuvier is followed in the works of this delightful writer, and this we consider to be the chief fault of his *Feathered Tribes*, the system of Cuvier being now almost as bygone as that of Linnæus, and, as a whole, it has far less merit. (See p. 29.)

Century of Birds from the Himalaya Mountains, by John Gould. Folio. London, 1831.

Monograph of the Ramphastidæ, by John Gould, 1834. Folio. £4. 10s.

Monograph of the Trogonidæ, by John Gould. London, 1835. Folio.

All these splendid and expensive works should, if possible, be procured by the Ornithologist. To criticise any of the plates would be useless, as, in our opinion, they are all equally well executed. The colouring of those splendid birds, the Toucans and Trogons, is exquisite, and always true to Nature.

Birds of Europe, by John Gould, A.L.S. Dedicated, by permission, to the President and Council of the Zoological Society. Imp. folio: in parts, £2. 10s. plain: £3. 3s coloured. 1832.

Thirteen quarterly parts of the *Birds of Europe* have already appeared, with twenty plates in each.

We have never yet seen any ornithological drawings that surpass those of Gould. They are perhaps equalled by Swainson's, and by some of Selby's. The original drawings in Swainson's *Ornithological Drawings*, which we saw when we had the pleasure of visiting that eminent Naturalist a few months ago, are really exquisite, and so are all the *Raptores* of Selby (see our p. 42), but we think these are equalled by the splendid figures of Gould, which are certainly far superior to the highly lauded plates of Audubon. Gould's figure of the Wryneckt Emet-hunter (*Yunx torquilla*) is beyond all conception beautiful and correct. The female is in the act of making its egress from the hollow tree where its nest is concealed, and the male is perched beside her. In all the plates each feather is distinctly marked, as in Nature, and yet the whole is so smooth, and has such a life and character, that one is almost tempted to lay one's hands on the prize, lest it should escape. Nothing can more clearly demonstrate the progress that Ornithology has made of late years, than the immense improvement in the figures of birds; for, although it partly belongs to art, yet no one is competent to draw a bird who has not closely studied the habits of each in the field of Nature. It does not, of course, follow that every one who has studied the habits of birds, will be able to draw birds well; for, added to this, the organs of form, colour, size, and imitation, must be well developed, in order to make him a good draughtsman.—The letterpress, which combines scientific and popular detail, is also very good, and occupies the page opposite to each plate. The following extract from his prospectus may perhaps be acceptable to our readers, though—if we remember rightly—it has already appeared in the *Magazine of Natural History*:—

“Eight years almost exclusively devoted to Ornithology, more particularly that of Britain; extensive acquaintance and constant communication with the most celebrated cultivators of this branch of Natural History; and resources in art beyond those which have already given such universal satisfaction, insure to the author advantages of no common extent. Assisted by experienced collectors at all the most favourable localities, it is intended that the artists employed on this work shall have, as far as possible, a constant supply of living, or very recently killed birds; thus insuring a degree of truth both of character and colouring, which museum specimens, however well preserved, can never supply. All the interesting periodical changes of plumage will be particularly illustrated; and the author hopes to secure for this arduous undertaking that degree of support which its merits and execution will be found to deserve.

“Each part to contain twenty plates, fifteen of which will be devoted to the representation of British birds, and five to those of the European continent. The price of each part to subscribers will be £3, to be paid for on delivery.

“Subscribers desirous of possessing the British birds only, are requested to signify their wishes; and the author, confidently anticipating the support of all the subscribers to the completion of the work, pledges himself, in that case, to a regular and equally perfect performance throughout.

“Only 300 copies will be printed off; and the work when complete will form two interesting and handsome volumes of the land and water birds of Europe. Portions of letterpress, forming together a history of the subjects of the plates, and minutely detailing the habits and manners of the species, as well as describing and explaining the various changes of their plumage, hitherto so imperfectly

understood, will be published occasionally ; forming, by the time of the completion of the figures, two volumes large 8vo., which will not exceed £2."

Unhappily, however, these volumes of letter-press never appeared. For our part, we think it would have been more to the advancement of Ornithology, had our author published a work of a smaller size. The plates would have been far more convenient for reference, if they had been quarto or octavo ; and would, besides, have been accessible to almost every one. Such a work would indeed have advanced the science.—The author of the *Birds of Europe* informs us that the plates are broken as soon as the impressions are taken off, on account of the enormous expense of preserving them. We understand also—from Mr. Swainson himself—that the same is done with the *Ornithological Drawings*.

Birds of America, by John James Audubon. Elephant folio. 1828.

Ornithological Biography, by J. J. Audubon, F.R.S. 2 vols. large 8vo. 1831—4. £2. 10s.

We must confess that we were not a little disappointed the first time we saw Audubon's plates. We had heard so much of them, from all quarters, that we naturally expected them to be far superior to those of Swainson, Selby, and others, whose drawings we had always considered—and still do consider—little short of perfection ; although the plates of Selby are not sufficiently even in their merits, and those of Swainson are perhaps not *engraved* in so masterly a style as the *Birds of America*. We think that Audubon's plates are of a needless size, and that the birds are almost overwhelmed, in

many cases, by the mass of herbage which surrounds them. If some of the plates were hung up as pictures, they would be taken for botanical instead of ornithological paintings; the figures of flowers are certainly better done than those of the birds, and thus the attention is apt to be drawn exclusively to the former. This we consider a great defect; for the flowers and trees, if introduced at all, should rather be to set off the birds, as in Jardine's *Naturalist's Library*, where the principal figures are coloured, and the surrounding herbage, drawn in a light, sketchy style, is uncoloured. The scenes in Audubon's plates sometimes exhibit a considerable degree of life and activity, but we do not in general find that character and freshness so peculiar in the *Birds of Europe*. In our opinion, none of Audubon's plates are so well executed as Selby's *Strigidae* and *Falconidae*, and thus we think that the public has been greatly deceived as to the apparently magnificent plates of Audubon. Fifty parts are come out, and two volumes completed. The whole, when finished, will cost £160. The list of subscribers to the *Birds of America* is very large.

The *Ornithological Biography*, which is the accompanying letterpress to the *Birds of America*, next claims our attention. Although we are by no means inclined to follow the common herd in lauding Audubon's plates through thick and thin, we think it our duty to confer unqualified praise on the accompanying letterpress. The enchanting descriptions of the species figured, are beyond all conception beautiful, and are indeed scarcely second to those of Wilson. The accuracy of these biographies has been doubted by our amiable friend Mr. Waterton, of Walton Hall. Of this we are scarcely qualified to judge with regard to the exclusively Transatlantic species, except by com-

parison with the accounts of Wilson ; but as to the descriptions of such British birds as he has already included in his *Biography*, they are as full and accurate as can well be imagined. Look, for instance, at his splendid biography of the Barn Owl* (*Strix flammea*) ; in this it would be impossible to discover a single error. And can we imagine, with all due respect to Mr. Waterton, that while the descriptions of the British birds are thus precise, those of the American species should be so grievously erroneous ? For our own part, we perfectly believe everything related by Audubon, and we think that the *Ornithological Biography* will ever hold a distinguished place on the shelf of the philosophic Ornithologist. After the completion of every volume of plates, a volume of letterpress appears, and we shortly expect great pleasure from the perusal of the third volume, which is not yet published. The intermediate pieces between the description of every five birds, are also very delightful, and may be considered as forming part of the biography of its distinguished author ; thus Audubon is carrying on his own biography, and that of the feathered tribes of America at the same time. We cordially recommend these invaluable volumes to the perusal of all classes of readers.

Gleanings in Natural History, with local recollections ; by Edward Jesse, Esq. To which are added Maxims and Hints for an Angler. A new edition. 1832. Vol. II, 1834. Vol. III, 1835. small 8vo. London. £1. 11s. 6d.

* We think there can now be no doubt as to the identity of the American and European Barn Owl, as Audubon's account of this bird tallies precisely in every particular with the habits and manners which we have observed in the European species.

These volumes are truly fresh and delightful, and show their author to be a real field Naturalist. We present our readers with a short extract from the second volume, to give an idea of the style and spirit of the *Gleanings*:—

“The propensity which the Raven has to hide things, is one of the peculiarities of its character. Many persons must recollect a Raven, which used to hop about amongst the workmen employed in the construction of the bridge, at the top of the Serpentine river in Hyde Park. This bird, from its familiarity and odd habits, attracted at the same time the notice of many persons, and amongst others that of a friend of mine. He constantly noticed and made many inquiries respecting it.—It was taken from a nest on the top of an elm tree in Hyde Park, with two or three others, all of which died. The one in question, however, survived, and became perfectly tame and sociable. It haunted the spot I have mentioned, and would sometimes take long flights and be absent some days, but always returned to the bridge. One day a lady was passing over it, and dropped a valuable bracelet. She turned round to pick it up, but before she could do so, the Raven had seized and immediately flew away with it out of sight. It was conjectured that he had a hiding place in some distant tree, where probably, at some future time, the bracelet and other things may be found. The fate of this Raven was a melancholy one. He was stolen, and was not heard of for a long time. At last, however, he returned, and one of his wings was cut. He was unable therefore to resume his former habits, and moped about, and one morning he was found dead in the Serpentine river, to the great regret of many of his admirers.”—Vol. II, p. 33—34.—The work is exceedingly rich in anecdote, throughout.

Zoologist's Text Book, by Capt. Thomas Brown, F.L.S., M.W.S., Ph. S., &c. Glasgow, 1833. 2 vols, 12mo. Reduced from £1. 1s. to 15s.

We do not much admire this work, as it consists merely of the generic and specific characters of birds, on which subject we had certainly already by far too many works. Nearly all the genera, according to Temminck's system, and at least one species of each genus are given. The first volume contains the letterpress, the second the figures, which latter, though generally good, are almost without exception copied from other authors.

Miscellany of Natural History. Vol. I, Parrots. By Sir T. D. Lauder, Bart., and Capt. T. Brown. Edinburgh. 1833. 6s.

This volume contains a portrait and biographical sketch of Audubon, consisting chiefly of extracts from the introduction to the *Ornithological Biography*. The most attractive portion of the book is the introduction, which contains much interesting matter. The plates are not remarkably good, and the descriptions necessarily short. We shall give our readers an extract from the introduction:—

“A tradesman, who had a shop in the Old Bailey, opposite the prison, kept two Parrots, much to the annoyance of his neighbours, one of which was green, and the other gray. The green Parrot was taught to speak when there was a knock at the street door—the gray put in his word whenever the bell was rung; but they only knew two short phrases of English a-piece, though they pronounced these very distinctly. The house in which these Thebans lived, had a projecting old-fashioned

front, so that the first floor could not be seen from the pavement on the same side of the way; and one day, when they were left at home by themselves hanging out of a window, some one knocked at the street door. 'Who's there?' said the green Parrot, in the exercise of his office. 'The man with the leather!' was the reply; to which the bird answered with his farther store of language, which was, 'Oh, oh!' Presently, the door not being opened as he expected, the stranger knocked a second time. 'Who's there?' said the green Parrot again. 'D—n you, who's there!' said the man with the leather, 'why don't you come down?' to which the Parrot again made the same answer, 'Oh, oh!' This response so enraged the visitor, that he dropped the knocker, and rung furiously at the house bell; but this proceeding brought the gray Parrot, who called out in a new voice, 'Go to the gate.'—'To the gate!' muttered the appellant, who saw no such convenience, and moreover imagined that the servants were bantering him. 'What gate?' cried he, getting out into the kennel, that he might have the advantage of seeing his interlocutor. 'New-gate,' responded the gray Parrot—just at the moment when his species was discovered."—p. 64—5.

We cannot resist the temptation of offering our readers one more anecdote, with which this volume abounds:—

"We remember a Parrot which belonged to a lady, which was the innocent means of getting his mistress into a very unfortunate scrape. A friend of hers having called one forenoon, the conversation of the two ladies took that turn towards petty scandal, to which, we grieve to say, it is but too frequently bent. The friend mentioned the name of a lady of their acquaintance. 'Mrs. ——!' exclaimed the owner of the Parrot, 'Mrs. —— drinks

like a fish.' These words were hardly uttered, when the footman, in a loud voice, announced 'Mrs. ——!' and as the new visitor, a portly, proud dame, came sailing into the room, 'Mrs. ——!' exclaimed the Parrot, 'Mrs. —— drinks like a fish.' Mrs. —— wheeled round, with the celerity of a troop of heavy dragoons, furiously to confront her base and unknown maligner." 'Mrs. ——!' cried the Parrot again, 'Mrs. —— drinks like a fish.' 'Madam,' exclaimed Mrs. —— to the lady of the house, 'this is a piece of wickedness towards me which must have taken you no short time to prepare. It shews the blackness of your heart towards one for whom you have long pretended a friendship; but I shall be revenged.' It was in vain that the mistress of the Parrot rose and protested her innocence; Mrs. —— flounced out of the room in a storm of rage, much too loud to admit of the voice of reason being heard. The Parrot, delighted with his new caught up words, did nothing for some days but shout out, at the top of his most unmusical voice, 'Mrs. ——! Mrs. —— drinks like a fish.' Meanwhile, Mrs. ——'s lawyers having once taken up the scent, succeeded in ferretting out some information, that ultimately produced written proofs, furnished by some secret enemy, that the lady's imprudence in the propagation of this scandal had not been confined to the instance we have mentioned. An action at law was raised for defamation. The Parrot was arrested and carried into court, to give oral testimony of the malignity of the plot which was supposed to have been laid against Mrs. ——'s good fame; and he was by no means niggardly of his testimony, for, to the great amusement of the bench, the bar, and all present, he was no sooner produced, than he began, and continued loudly to vociferate, 'Mrs. ——! Mrs. —— drinks like a fish!' till judges and jury were alike satisfied

of the merits of the case; and the result was, that the poor owner of the Parrot was cast with immense damages."—p. 75—6.

We believe this is the only volume of the *Miscellany of Natural History* that has appeared.

Illustrations of Ornithology, by Sir Wm. Jardine, Bart., F.R.S.E., F.L.S., M.W.S., and P. J. Selby, Esq., F.R.S.E., F.L.S., M.W.S., &c. Royal 4to. each part £1. 5s.; imp. 4to., £2. 2s. Plain, 18s. royal 4to.; £1. 11s. imp. 4to. Edinburgh.

This is a very valuable work, as indeed the talent employed on it sufficiently ensures. The authors are assisted by the following eminent Zoologists:—J. E. Bichenor, Esq.; J. G. Children, Esq.; General Hardwicke; T. Horsfield, M.D.; R. Jameson, Esq.; and N. A. Vigors, Esq. The plates are beautifully coloured, and the letterpress accurate and well written. We give a short notice of this excellent work because, although we have frequently seen it, yet do not possess it, and are consequently unable to give so satisfactory an analysis of its contents as we could have wished. We can, however, safely recommend it to our scientific readers, as an accurate publication.

Wilson's American Ornithology, edited by Sir Wm. Jardine, Bart. 1832. 3 vols. 8vo. £3. 3s. plain, £6. 6s., coloured. In cloth; with notes.

This is by far the best edition of the *American Ornithology* (see p. 25), both on account of the beautiful coloured plates, and the interesting notes by the Editor; of the merits of the *American Ornithology* we have already spoken, and, therefore,

it is unnecessary to renew our approbation in this place. The Ornithologist should, if possible, procure this edition.

Naturalist's Library. Ornithology. *Humming Birds*; 2 vols. 12mo. 1833. 12s.—*Gallinaceous Birds*; vol. III, 1834. 6s.—*Game Birds*, vol. IV, 1834. 6s.—*Pigeons*, vol. V, 1835. 6s. Conducted by Sir W. Jardine. The *Pigeons* by P. J. Selby, Esq.

This is an excellent and popular work, about seven thousand copies being sold. We do not much admire the *Humming Birds*, on account of the stiffness of the figures, and the scantiness of the letterpress. The first volume contains a memoir of Linnæus, and the second of Pennant, with portraits of each.—The figures in the *Gallinaceous Birds* (vol. 3) are much better executed, and some of the descriptions long and interesting. This volume contains a portrait and memoir of Aristotle.—In the *Game Birds* again we observe a decided improvement, both in the figures and letterpress. The description of the Wood Grouse (*Tetrao urogallus*), formerly a British species, is highly interesting, and the figure of this noble bird—copied from Bewick—is even superior to the original. The volume entitled *Game Birds* is accompanied by a beautiful portrait and interesting memoir of Sir Stamford Raffles, copied, by permission, from that which adorns the *Life and Public Services of Sir T. S. Raffles*.—The *Natural History of Pigeons*, by Selby, is the best ornithological volume that has yet appeared in this series. The plates are mostly well executed, and the letterpress combines popular and scientific detail. The descriptions of the British *Columbidæ* are interesting and well written, and

the whole volume is characterised by the good taste which pervades the other works of this excellent Ornithologist. The volume commences with a portrait and memoir of Pliny. Upon the whole, the *Naturalist's Library* may be considered rather as an ornamental than a useful work.

Outline of the Smaller British Birds, intended for Ladies and Young Persons. By R. A. Slaney, Esq., M.P. Second edition. London. 12mo. 4s. 6d. 1833.

This is an excellent and an original work, and well adapted for the purpose for which it is intended. A short extract will give some idea of it:—

“The little Blue Titmouse, with a yellow breast, is very common, very pert, mischievous, and amusing; it has the provincial name of nun, we suppose, from some fancied resemblance of the white broad patches on its cheeks to the plain white head-dress of some religious order,—certainly from no similarity in manners to a female devotee; on the contrary, we have often thought its note very like scolding. ‘It visits the farm yard, and is partial to oats, which it plucks out; and, retiring to a neighbouring bush, fixes the grain between its claws, and hammers with the bill to break the husk.’ * * * * *

“No bird attacks the Owl, in the day-time, with greater fierceness than our Blue Titmouse; buffet-ing its venerable adversary, erecting its feathers, screaming for aid, and in every way expressing its impotent rage.” p. 108—9.

The work is written throughout in a familiar style, and is well adapted for youth. The wood-

cuts are also well executed, and we recommend the volume to all our young readers.

Another little work, published at about the same time, scarcely deserves a notice.—We allude to the *Minstrelsy of the Woods*. The figures, which may be had coloured or plain, are good, but the letterpress is entirely copied from Bewick's *British Birds*, or from Griffith's *Cuvier*.

British Oology; being Illustrations of the Eggs of British Birds, with Figures of [those of] each species, as far as practicable, drawn and coloured from Nature, &c., by W. C. Hewitson. In two-monthly 8vo. Nos., each containing 4 lithographic prints. Newcastle-on-Tyne and London. Nos. 1 to 25.

This is indeed an admirable work, and it was certainly much wanted. The only illustrations we before possessed of the eggs of British birds were those of Lewin, in the *Birds of Great Britain* (reviewed at p. 17), which are generally very indifferent. All the figures in the *British Oology* are drawn by the author, and coloured by Mr. J. Standish, in a very creditable manner. Where the eggs of any species are subject to variety, two, and sometimes three, specimens are given. We think this a good plan; for, although it considerably extends the work, yet it would otherwise be impossible, in many cases, to discover to what species an unknown egg belongs. Beautiful and accurate as are the figures, we do not so much admire the letterpress; at least, what there is of it is good, but it is, in most cases, too short. It would be an improvement if Mr. Hewitson were to state that he would publish whatever facts, regarding the nidification of birds, his correspondents would send him, under

the proper heads in the body of the work.—We are sorry to observe that the system of Temminck is followed in this excellent work; for although this system is a great improvement on that of Linnæus, and less objectionable than the Cuvierian, yet we think it would have been much more to the advancement of the science, to have adopted the Circular System (p. 30) of the great Macleay, which is, undoubtedly, the most natural classification hitherto promulgated. At least, we think Mr. Hewitson should have divided his genera more minutely. Who that has studied the *Falconidæ*, the *Sylviadæ*, the *Anatidæ*, or any other natural family in their native haunts, will consent to include them all in a single genus, without further division? Each natural family evidently divides itself into five equally natural subfamilies, and these again into genera, without reference to any particular number. Our author also frequently places on the same plate the eggs of birds belonging, even according to Temminck, to totally distinct genera. The eggs of two birds should not, of course, be placed on the same plate, where there are any species intermediate between those two birds. And again, the author includes the Green Grosbeak in *Fringilla*, while he very properly removes the Haw Grosbeak into *Coccothraustes*; how, in the name of wonder, so flagrant an error could find its way into a work like the *British Oology*, we are quite at a loss to determine.

This beautiful and highly valuable work must of course be possessed by every British Naturalist. The list of subscribers already exhibits the names of most of our eminent Ornithologists, and will, no doubt, continue to increase. We hope that Mr. Hewitson will figure the eggs of *Coccyzus Americanus*, *Alauda alpestris*, *Regulus ignicapillus*, and, in short, every species of which a single individual

has been met with in Britain. The *British Oology* was commenced in 1831, and will not be completed till 1842, if continued at the same rate as hitherto. The eggs are figured without any reference to order, and will not be arranged until the conclusion of the work. We think it would have been a much better plan if Mr. Hewitson had obtained a complete set of the eggs, *before* he commenced his work, as he might then have proceeded in systematic order, the advantages of which must be obvious to every one. In fine, we recommend this exquisitely beautiful work to the attention of all our readers.—When we say *exquisitely* beautiful, we allude chiefly to the plates, which are indeed the principal part of the publication.

Architecture of Birds, 1831; *Habits of Birds*, 1833; *Faculties of Birds*, 1835. 12mo. 15s. Knight, Ludgate Street.

We shall now proceed to notice Professor Rennie's "conglomerates," in chronological order; not because they have the smallest influence in advancing the science, but rather, on the contrary, on account of their retarding it. Such compilations as we are now noticing, may please the vulgar, but they have nothing to do with the interests of philosophical science. The woodcuts in these volumes, and especially in the *Architecture of Birds*, are extremely beautiful, but the letterpress is wholly compiled, and consists either of quotations from other works, or of the theories and opinions expressed by preceding authors, with occasionally, but very seldom, a fact observed by the worthy compiler himself. The subjects are arranged with little reference to order, and, on the whole, we never met with more worthless and bare-

faced *conglomerates* in the whole course of our ornithological reading—Jennings's *Ornithologia* (p. 53) not excepted. It is a favorite notion of the Professor's, that birds strengthen their nests by saliva from their own mouths; in speaking of which, Mudie says in his charming *Feathered Tribes* (reviewed p. 63), "it has, very naturally, no doubt, occurred to some who have mentioned this bird (the Hedge Dunnock), that the internal part of the nest is put together with *paste*,—(as some books are, and, of course, that the materials are obtained with *scissors*,)—a process to which *magpies* will resort, though, instead of paste, they are apt to daub with more vulgar mortar, as the manner of some is—among ourselves."—p. 287. These trashy volumes are wholly useless to the Ornithologist, and reflect no credit upon the Professor of Zoology at King's College, even as a compiler. We marvel at the Useful Knowledge Society's having chosen such a man as Rennie for writing—or rather pasting together, for we should think his pen had very little to do in the matter—the ornithological volumes of the *Library of Entertaining Knowledge*. Had Mudie, or our intelligent friend Mr. Blyth been fixed on, we might have expected both a useful and entertaining series, which Rennie is totally unable to produce.

Montagu's Ornithological Dictionary. Second edition, edited by Professor Rennie. London. 1831. 8vo. £1. 1s.

Although we have already mentioned this edition of Montagu's excellent *Ornithological Dictionary* (p. 20), yet we shall here offer a few additional remarks on it.

We shall now direct our attention chiefly to the

English names of birds used in this edition. What do our readers think of such names as "Boonk" (*Nycticorax Europæus*), "Dulwilly" (*Charadrius hiaticula*)—dull-Rennie we think,— "Lumme" (*Colymbus arcticus*), "Loon" (*Colymbus glacialis*) "Cobble" (*C. septentrionalis*), "Dung-hunter" (*Lestris Richardsonii*), and many others which they have doubtless seen in the "conglomerate" itself?—Speaking of the latter name, Mudie says, "it is the species (*Lestris Richardsonii*) which is most familiar to popular observation, and therefore the one which has been, rather ingloriously named as if it fed upon the 'mutings' of other birds, and not, as it really does, upon the undigested or partially digested food, which the fear of it makes them disgorge from their stomachs. That such a notion should have been entertained generally in the times of ignorance, and that it should still be entertained by the confessedly ignorant, is not at all to be wondered at; but it is a matter of somewhat amusing marvel, to find those, who appear to exist for no useful purpose but that of cavilling at and mending the expressions of others (if indeed that be a useful purpose), leave upon the page of their volume that name of the bird, set forth as a classical English name, which is not only expressive of a falsehood, and therefore more exceptionable in Natural History than a simple nonsense name, but such as no polite person can pronounce in decent society. One would desire to be tender of the frailties of human nature, inasmuch as man did not make himself—though he sometimes spoils and botches the workmanship; but truly the feeble-minded should especially guard against all approximation to vulgarity, inasmuch as no elevated part of their character stands up, which can, under any position of the sun or the reader, veil the offence with its kindly shadow. If, however, such is to

be done, the genus *Lestris* is unquestionably that wherein to do it, inasmuch as there may be a strong feeling of consanguinity, and the usual argument may be raised, that 'a man may do with his own what he likes.'—So much for the literary *Lestri*; and the misfortune is, that even the Eagle is not secure from their predations."—*Feathered Tribes*, Vol. II, p. 346—7.

Alphabet of Zoology, by James Rennie, A.M.

A compilation of no merit.

White's Natural History of Selborne; edited by James Rennie. London, 1833. 8vo. 16s.

This is by far the best edition of White's delightful letters, but the index is very meagre. We have noticed this edition at p. 12, and further remarks on it are therefore unnecessary.

Natural History Division of the British Cyclopædia, conducted by C. F. Partington. 22 Nos. 1s. each. London. 8vo. 1834.

This excellent and useful work was commenced in May, 1834, and has since appeared regularly on the first of each month. Every known species of bird is here described, and sometimes figured. We could have wished, for the sake of uniformity, that one system had been adopted throughout. The difference, as regards classification, arises from several individuals being employed in the ornithological department. Many of the articles are written by Mudie, some, we suspect, by Blyth, and others.

The descriptions of species are often long and interesting, and we cordially recommend this extremely cheap, useful, and interesting work to all our readers. The Cyclopædia has only advanced as far as the letter E.

The Analyst; a Monthly Journal of Science, Literature, and the Fine Arts. 2 vols. 8vo. Simpkin and Marshall, London. 1834—5. £1.

The *Analyst* is by far the best Magazine of the kind with which we are acquainted, and emanates from the town of Worcester. The latter numbers are rich in Ornithology, and the whole work deserves the attention of the scientific Naturalist, no less than of the general reader. We will now proceed to notice the ornithological articles and reviews in this invaluable Journal, in order that our readers may judge of its merits. At Vol. I, p. 82, is a long and very able review of Mudie's *Feathered Tribes*. At p. 98 is a review of Dr. Hastings's *Illustrations of the Natural History of Worcestershire*; at p. 139, of Dr. Shirley Palmer's *Popular Lectures on the Vertebrated Animals of the British Islands*. At p. 171, are "A few general observations on Natural History," by Mrs. Perrott; at p. 189 are some delightful notes on "Insectivorous Birds"; at p. 222 is a notice of the formation of a Natural History Society at Ludlow. At p. 248 are some "Memoranda respecting the nidification of the Common Wren," by Mrs. Perrott; at p. 258 is a highly interesting paper "on the plumage, nest, and eggs of the Longtailed Tit (*Parus caudatus*)," in which the excellent name *Corvus nudirostris* (*C. frugilegus*, Lin.; *C. prædatorius*, Rennie) is proposed. At p. 328 is a continuation of the notes on "Insectivorous Birds," besides an abstract of

various lectures on animals, delivered before the Worcestershire Natural History Society. We earnestly recommend all the above articles to the attention of our readers.

Ornithology seemed to have been entirely forgotten in the first part of Vol. II, nor is there a single article on that subject until that "on making the English generic names of birds correspond to the Latin ones," by ourselves. In this paper we have suggested that each genus should have a generic name peculiar to itself, in English as well as in Latin, instead of the lax and unscientific mode of giving the same generic name to half a dozen wholly distinct genera. We will, however, refer our readers to the article in question, the principles of which certainly deserve the attention of the scientific Naturalist. At p. 269 is a review of Mudie's excellent little work, the *Natural History of Birds* (reviewed in our p. 73). The reviewer here supposes that Mudie wishes to class the Barefaced Crow (*Corvus nudirostris*; *C. frugilegus*, Linn.) and Blue Tit in the same genus, which would indeed be a gross violation of the laws of Nature. From what that Mudie has said, the reviewer has gathered this, we are totally at a loss to divine.—At p. 305 we find some excellent "remarks on vernacular and scientific ornithological nomenclature," on the same principles as our article at p. 238. In this paper several new names, both Latin and English, are proposed. At p. 317 is an article by Mr. Strickland, objecting to our alteration in the English nomenclature of birds. Mr. Strickland's arguments are, however, few and weak. Amongst the Critical Notices of New Publications in No. 11, are reviews of Hewitson's *British Oology* (noticed at our p. 87), Jardine's *Game Birds*, and Rennie's *Faculties of Birds*. At p. 394 is a long and detailed account of the "Habits of the Brake Nightingale

(*Philomela lusciniæ*, Swains.), by Neville Wood, Esq.," which contains many new facts regarding this delightful songster, and is fuller than any description of it in standard ornithological works. At p. 419 we have answered Mr. Strickland's objections to our nomenclature. Amongst the Critical Notices in No. 12 are reviews of Swainson's admirable *Treatise on the Geography and Classification of Animals*, and of Mrs. Perrott's *Selection of British Birds*.

Some apology may perhaps be due for having spoken somewhat highly of our own papers in the *Analyst*, but we have spoken of them with perfect impartiality, and it would certainly have been false modesty to have omitted all notice of them, besides being unfair to the Magazine. The *Analyst* is henceforth to be published quarterly instead of monthly, and is, we understand, to put on a somewhat altered appearance. We hope that *all* our readers will extend their patronage to the forthcoming number (to be published on the first of October), even if they do not procure the rest of the work. In conclusion, we may remark that we have never seen a more interesting and useful periodical than THE ANALYST.

Illustrations of British Birds, in monthly Nos. 4to. Price to Subscribers, 10s. 6d. coloured; plain, on India paper, 8s.; to nonsubscribers, 12s. 6d. and 10s.; by H. L. Meyer. London, 1835.

The figures in this work are not characteristic, and birds of different genera, and even different orders, are figured on the same plate. The same error is observable with regard to the eggs. Two or three lines of description are given at the foot of each plate. We cannot recommend the work to

the British Ornithologist. Had the plates of birds and eggs been good, and the letterpress combining scientific and popular detail, the publication would have been invaluable.

Selection of British Birds frequenting Worcestershire, by Mrs. C. L. E. Perrott. Dedicated to her Royal Highness the Landgravine of Hesse Hombourg. Elephant folio. Part 1, 1835. coloured, £1. 1s. ; uncoloured, 14s.

We are compelled to state that this work is even not so good as Meyer's *Illustrations*, reviewed above. The plates—of which there are to be five in each number—are from drawings by Mrs. Perrott, engraved by Robert Havell ; the descriptions—which are good, but too much copied—will also occupy five pages. A number is to appear every two months, and the work will be completed in two volumes. Part I contains figures of the Hamburgh Fowl, Ring Pigeon, Raven Crow, Whin Chat, and Blue Tit ; none of these are good, but that of the Raven is the best. We neither subscribe to this work, nor intend to do so. We are indebted to the kindness of a friend for being enabled to review Part I of Mrs. Perrott's *Selection of British Birds*.

Philosophical Transactions of the Royal Society, many vols.

Journal of the Royal Institution.

Transactions of the Wernerian Society of Edinburgh.

Transactions of the Natural History Society of Northumberland, Durham, and Newcastle-on-Tyne.

Transactions of the Zoological Society.

Dictionnaire des Sciences Naturelles. 8vo.

Dictionnaire Classique d'Histoire Naturelle.
8vo.

Annales des Sciences Naturelles. 8vo. monthly.

Bulletin des Sciences Naturelles. 8vo. monthly.

These and many other Journals and Transactions of learned Societies that might be mentioned, frequently contain valuable Essays on Ornithology, and some of them at least should be possessed by the Ornithologist. It is, we conceive, unnecessary to make a particular analysis of their contents. Many of them have now extended to several volumes.

Werner's Nomenclature of Colours ; Edited by Patrick Syme. Edinburgh. 1821. Thin 8vo.

Every Ornithologist should possess this volume, especially as it is the nomenclature adopted by Selby, in his splendid *Illustrations of British Ornithology*. There should of course be a fixed nomenclature in Ornithology, and Syme's Werner is the best with which we are acquainted.

A New Work on the Smaller British Birds.

Our friend Mr. Blyth, of Tooting, Surrey, informs us that the first number of a work on the smaller British birds is to appear on the first of October, by himself and Mr. Fowler. We believe it was originally intended that each number should comprise a family, but this plan was afterwards abandoned, and each No. will now contain four coloured plates; the plumage of the old and young of each species will be particularly attended to. Full and

interesting popular descriptions of each will also be given; these will be written by Mr. Blyth. Each number is to cost half-a-crown, and each plate to contain one, two, or three figures, as circumstances will admit. If the work is well conducted, of which indeed we have little doubt, it will be very useful. We should have liked it better, had the original plan, of including a family in each number, been adhered to, but this was scarcely practicable. We are glad to find that the principles of English Nomenclature, inculcated by us in the *Analyst* (reviewed p. 93), will be followed in this work. Mr. Blyth has kindly submitted to us a list of the birds he intends to figure and describe, with their Latin and English names. It includes nearly all the birds belonging to the order *Insessores* of Vigors.

Since writing the above, we have learned that this work will not be commenced for some months to come.—Jan. 11, 1836.

END OF PART I.

PART II, SYNOPSES OF SYSTEMS.

WILLUGHBY'S SYSTEM. 1678.

LAND FOWL.

Rapacious Diurnal Birds. [Order *Raptores**,
Family *Laniadæ* and *Cuculidæ*].

Rapacious Nocturnal Birds. [Fam. *Strigidæ*
and *Vociferatoridæ*, mihi].

Crow Kind. [*Corvidæ*].

Woodpecker Kind. [*Picidæ* and *Certhiadæ*.]

Poultry Kind. [*Phasianidæ*, *Tetraonidæ* and
Crex].

Pigeon Kind. [*Columbidæ*].

Thrush Kind. [*Merulidæ*, *Cinclus*, *Sturnus*].

Small Birds with Slender Bills. [*Alauda*, *Hirundinidæ*, *Sylviadæ*].

Small Birds with thick and short bills. [*Fringillidæ*].

WATER FOWL.

Cloven-footed, such as live about waters and
marshes.

The Greater Kind. [*Gruidæ*, *Ardeidæ*].

Middle and Lesser Kinds with very long bills.
[*Numenius*, *Scolopax*, *Limosa*, *Totanus*, *Ædicnemus*, *Hæmatopus*].

2. With middle-sized bills.

[*Machetes*, *Totanus*, *Tringa*, *Arenaria*, *Alcedo*].

3. With short bills.

[*Vanellus*, *Charadrius*, *Hæmatopus*].

* Mr. Vigors's quinary groups are put in editorial brackets, to point out the species included in Willughby's divisions.

Water Fowl that swim.

I. Cloven-footed, some of which may be called fin-toed, because they have lateral appendant membranes on each side their toes. [*Colymbus*, *Podiceps*, *Gallinula*, *Fulica*, *Rallus*].

II. Whole-footed birds. 1: such as swim. [*Fratricula*, *Alca*].

2. Such as have four toes, all web'd together. [*Sula*, *Cormoranus*].

3. Such as have four toes, but the hind one separate; and first, such as have narrow and sharp-pointed bills. [*Laridæ*, *Procellaridæ*, mihi].

2. Such as have narrow, serrate, or toothed bills. [*Sula*, *Mergus*].

4. Such as have broad bills; and 1. The Goose kind. [*Cygnus*, *Anser*].

2. The Duck kind, [*Tadorna*, *Spathulea*, *Chauliodus*, *Anas*, *Querquedula*, *Mareca*, *Oidemia*, *Somateria*, *Fuligula*, *Harelda*, *Clangula*].

Confused and full of flagrant errors as is the above system—especially in the water birds—it is undoubtedly the first rational attempt at classification.

LINNÆUS'S SYSTEM.

(Twelfth edition of the *Systema Naturæ*, 1766.)

I Order, ACCIPITRES.—Gen. *Vultur*, *Falco*, *Strix*, *Lanius*.

II Order, PICÆ.—Division 1, pedibus ambulatoriis.—Gen. *Trochilus*, *Certhia*, *Upupa*, *Glaucoptis*, *Buphaga*, *Sitta*, *Oriolus*, *Coracias*, *Gracula*, *Corvus*, *Paradisæa*.

Divis. 2, pedibus scansoriis.—Gen. *Ramphastos*, *Trogon*, *Psittacus*, *Crotophaga*, *Picus*, *Yunx*, *Cuculus*, *Bucco*.

Divis. 3, pedibus gressoriis.—*Buceros*, *Alcedo*, *Merops*, *Todus*.

III Order, ANSERES.—Divis. 1, rostro denticulato.—*Anas*, *Mergus*, *Phaeton*, *Plotus*.

Divis. 2, rostro edentulo.—*Rhyncops*, *Diomedea*, *Aptenodyta*, *Alca*, *Procellaria*, *Pelecanus*, *Larus*, *Sterna*, *Colymbus*.

IV Order, GRALLÆ.—Divis. 1, pedibus tetradactylis.—*Phænicopterus*, *Platalea*, *Palamadea*, *Mycteria*, *Tantalus*, *Ardea*, *Corrora*, *Recurvirostra*, *Scolopax*, *Tringa*, *Fulica*, *Parra*, *Rallus*, *Vaginalis*, *Psophia*, *Cancroma*, *Scopus*, *Glareola*.

Divis. 2, pedibus cursoriis sive tridactylis.—*Hæmatopus*, *Charadrius*.

V Order, GALLINÆ.—*Otis*, *Struthio*, *Didus*, *Pavo*, *Meleagris*, *Penelope*, *Crax*, *Phasianus*, *Numidia*, *Tetrao*.

VI Order, PASSERES.—Divis. 1, Crassirostres.—*Loxia, Colius, Fringilla, Phytotoma, Emberiza.*

Divis. 2, Curvirostres.—*Camprimulgus, Hirundo, Pipra.*

Divis. 3, Emarginatirostres.—*Turdus, Ampelis, Tanagra, Muscicapa.*

Divis. 4, Simplicirostres.—*Parus, Motacilla, Alauda, Sturnus, Columba.*

6 orders, 87 genera.

BRISSON'S SYSTEM. 1760.

Divis. I, LAND BIRDS.

I Ordre.—Gen. *Pigeon*.

II Ordre, bec en cône courbé.

A. Tête garnie de membranes charnues.—*Dindon, Coq, Peintade*.—B. Tête dénuée de membranes.—*Gelinote, Perdrix, Faisan*.

III Ordre, bec court et crochu.

A. Base du bec couverte d'une peau nue.—*Épervier, Aigle, Vautour*.—B. Base du bec couverte de plumes tournées en devant.—*Hibou, Chat-huant*.

IV Ordre, bec en cône allongé.

A. Narines couvertes par les plumes.—*Coracias, Corbeau, Pie, Geai, Cassenoix*.—B. Narines découvertes.—*Rollier, Troupiale, Oiseau-de-Paradis*.

V Ordre, bec droit, à bords de la mandibule supérieure échancrés vers le bout.

Pie-grièche, Grive, Cotinga, Gobe-mouche.

VI Ordre, Les deux mandibules entières.

Pique-bœuf, Étourneau.

VII Ordre, bec menu et un peu arqué.

Huppe, Promerops.

VIII Ordre, bec très petit, comprimé horizontalement à sa base, et crochu à son bout ; l'ouverture du bec plus large que la tête.

Tette-chèvre, Hirondelle.

IX Ordre, bec en cône raccourci.

A. Les deux mandibules droites.—*Tangara, Chardonneret, Moineau, Grosbec, Bruant*.—B. Mandibule supérieure crochue.—*Coliou, Bouvreuil, Bec-croisé*.

X Ordre, bec en alène.

Alouette, Bec-figue, Mésange.

XI Ordre, bec en forme de coin.

Torchepot.

XII Ordre, bec effilé.

Grimpereau, Colibri, Oiseau-mouche.

XIII Ordre, quatre doigts ; deux devant et deux derrière.

A. Bec droit.—*Torcol, Pic, Jacamar*.—B. Bec un peu courbé.—*Barbu, Coucou*.—C. Bec court et crochu.—*Couroucou, Bout-de-petun, Perroquet*.—D. Bec long, de la grosseur de la tête.—*Toucan*.

XIV Ordre, celui du milieu des trois antérieurs étroitement uni à l'extérieur jusqu' à la troisième articulation, et à l'intérieur jusqu' à la première.

A. Bec court et comprimé.—*Coq-de-roche, Manakin*.—B. Bec conique et dentelé.—*Momot*.—C. Bec droit et assez long.—*Martin-pêcheur, Todier*.—D. Bec arqué.—*Guépier, Calao*.

XV Ordre, la partie des jambes dénuée de plumes, les ailes petites à proportion du corps et impropres pour le vol.

Autruche, Touyou, Casoar, Dronte.

XVI Ordre, les ailes assez grandes et propres pour le vol ; trois doigts devant, pas derrière.

Outarde, Échasse, Huîtrier, Pluvier.

XVII Ordre, trois doigts devant, un derrière.

A.—*Vanneau, Jacana, Coulon-chaud, Perdrix de mer, Râle*.—B. *Bécasseau, Barge, Bécasse, Courlis, Spatule*.—C. *Cicogne, Héron, Ombrette*.—D. *Cuillière, Oiseau-royal, Cariama, Kamichi, Poule-sultane*.

Divis. II, WATER BIRDS.

XVIII Ordre, les doigts garnis dans toute leur longueur de membranes ; fondues ; trois doigts devant, un derrière.

A. Membranes simples.—*Poule d'eau*.—B. Membranes festonnées.—*Phalarope, Foulque*.

XIX Ordre, demi-fendues : quatre doigts, dont les trois antérieurs sont joints ensemble par les membranes, et le postérieur séparé ; les jambes placées tout-à-fait derrière et cachées dans l'abdomen.

Grèbe.

XX Ordre, les jambes placées tout-à-fait derrière et cachées dans l'abdomen ; trois doigts devant, tous joints ensemble par les membranes ; pas de doigts derrière.

Guillemot, Macareux, Pingouin.

XXI Ordre, quatre doigts ; les trois antérieurs joints ensemble par les membranes, et le postérieur séparé.

Manchot, Gorfou, Plongeon.

XXII Ordre, les jambes avancées vers le milieu du corps et hors de l'abdomen ; plus courtes que le corps ; trois doigts devant, tous joints ensemble par les membranes, et point de doigt derrière.

Albatros.

XXIII Ordre, quatre doigts ; les trois antérieurs joints ensemble par les membranes et le postérieur séparé ; le bec sans dentelures.

A. *Puffin, Pétrel, Stercoraire, Goëland*.—

B. *Hirondelle de mer, Bec-en-ciseau*.

XXIV Ordre, le bec dentelé.

Harle, Oie, Canard.

XXV Ordre, tous joints par les membranes.

Anhinga, Paille-en-queue, Fou, Cormoran, Pélican.

XXVI Ordre, les jambes plus longues que le corps ; les trois doigts antérieurs joints par les membranes ; le postérieur séparé.

Flammant, Avocette, Coureur.

26 orders, 115 genera.

LATHAM'S SYSTEM. 1790.

Divis. 1, TERRESTRES.

I Order, ACCIPITRES.

Vultur, Falco, Strix.

II Order, PICÆ.

A. Walking feet.—*Lanius, Buphaga, Glaucopis, Corvus, Coracias, Oriolus, Gracula, Paradisæa, Sitta, Upupa, Certhia, Trochilus.*

B. Climbing feet.—*Psittacus, Ramphastos, Callæus, Crotophaga, Trogon, Bucco, Cuculus, Yunx, Picus, Galbula.*

C. Running feet.—*Momota, Buceros, Alcedo, Todus, Merops.*

III Order, PASSERES.

A. With hard thick bills.—*Loxia, Emberiza, Fringilla, Phytotoma.*

B. Bill flat, suddenly narrowing from the base to the tip.—*Colius, Pipra, Hirundo, Caprimulgus.*

C. Upper mandible depressed at the tip.—*Turdus, Ampelis, Tanagra, Muscicapa.*

D. Bill straight, entire, and narrow.—*Sturnus, Alauda, Motacilla, Sylvia, Parus.*

IV Order, COLUMBÆ.

Columba.

V Order, GALLINÆ.

Pavo, Gallopavo, Penelope, Numidia, Crax, Phasianus, Tinamus, Tetrao, Perdix, Psophia, Otis.

VI Order, STRUTHIONES.

Didus, Rhea, Casuarius, Struthio.

Divis. 2. AQUATICÆ.

VII Order, GRALLÆ.

Platalea, Palamedea, Mycteria, Cancroma, Scopus, Ardea, Ibis, Numenius, Scolopax, Vanelus, Charadrius, Cursorius, Hæmatopus, Glareola, Rallus, Parra, Gallinula, Chionis.

VIII Order, PINNATIPEDES.

Phalaropus, Fulica, Podiceps.

IX Order, PALMIPEDES.

A. With long legs.—*Recurvirostra, Glareola, Phænicopterus.*

B. With short legs.—*Diomedea, Alca, Uria, Colymbus, Rhyncops, Sterna, Larus, Procellaria, Mergus, Anas, Aptenodytes, Pelecanus, Phaëton, Plotus.*

9 orders, 101 genera.

LACÉPÈDE'S SYSTEM. 1799.

PREMIÈRE SOUS-CLASSE.

Le bas de la jambe garnis de plumes ; point de doigts entièrement réunis par une large membrane.

PREMIÈRE DIVISION.

Deux doigts devant, et deux derrière.

Première Sous-division.

Doigts gros et forts.

GRIMPEURS.

I Ordre, bec chrochu.

Ara, *Ara* ; Perroquet, *Psittacus*.

II Ordre, bec denlé.

Toucan, *Ramphastos* ; Couroucou, *Trogon* ;
Touraco, *Touraco* ; Musophage, *Musophaga*.

III Ordre, bec échancré.

Barbu, *Bucco*.

IV Ordre, bec droit et comprimé.

Jacamar, *Galbula* ; Pic, *Picus*.

V Ordre, bec très court.

Torcol, *Yunx*.

VI Ordre, bec arqué.

Coucou, *Cuculus* ; Ani, *Crotophaga*.

SECONDE DIVISION.

Trois doigts devant, un doigt ou point de doigt derrière.

Première Sous-division.

Ongles forts et très chrochus.

OISEAUX DE PROIE.

VII Ordre, bec crochu.

Vautour, *Vultur* ; Griffon, *Gypaëtus* ; Aigle, *Aquila* ; Autour, *Astur* ; Épervier, *Nisus* ; Buse, *Buteo* ; Busard, *Circus* ; Milan, *Milvus* ; Faucon, *Falco* ; Chouette, *Strix*.

Deuxième Sous-division.

Ongles crochus, doigts extérieurs libres ou unis seulement le long de la première phalange.

PASSEREAUX.

VIII Ordre, bec dentelé.

Phytotome, *Phytotoma*.

IX Ordre, bec échancré.

Piegrèche, *Lanius* ; Tyran, *Tyrannus* ; Gobe-mouche, *Muscicapa* ; Moucherolle, *Muscivora* ; Merle, *Turdus* ; Fourmillier, *Myrmecophaga* ; Lorient, *Oriolus* ; Cotinga, *Ampelis* ; Tangara, *Tanagra*.

X Ordre, bec droit et conique.

Cacique, *Cacicus* ; Troupiale, *Icterus* ; Carouge, *Xanthornus* ; Étourneau, *Sturnus* ; Grosbec, *Loxia* ; Bouvreuil, *Pyrrhula* ; Moineau, *Fringilla* ; Bruant, *Emberiza*.

XI Ordre, bec droit et comprimé.

Gracule, *Gracula* ; Corbeau, *Corvus* ; Rollier, *Coracias* ; Paradis, *Paradisea* ; Sittelle, *Sitta* ; Pic-bœuf, *Buphaga* ; Picoïde, *Picoïdes*.

XII Ordre, bec droit et menu.

Mésange, *Parus* ; Alouette, *Alauda* ; Becfin, *Sylvia* ; Motacille, *Motacilla*.

XIII Ordre, bec très court.

Hirondelle, *Hirundo* ; Engoulevent, *Caprimulgus*.

XIV Ordre, bec arqué.

Glaucopie, *Glaucopis* ; Huppe, *Upupa* ; Grim-pereau, *Certhia* ; Colibri, *Trochilus*.

XV Ordre, bec renflé.

Mouche, *Orthorhynchus*.

Troisième Sous-division.

Doigts extérieurs unis dans presque toute leur longueur.

PLATYPODES.

XVI Ordre, bec dentelé.

Calao, *Buceros* ; Momot, *Momota*.

XVII Ordre, bec droit et comprimé.

Alcyon, *Alcedo* ; Ceyx, *Ceyx*.

XVIII Ordre, bec droit et déprimé.

Todier, *Todus*.

XIX Ordre, bec droit et menu.

Manakin, *Pipra*.

XX Ordre, bec arqué.

Guépier, *Merops*.

Quatrième Sous-division.

Doigts de devant réunis à leur base par une membrane.

GALLINACÉES.

XXI Ordre, bec renflé.

Pigeon, *Columba* ; Tétraz, *Tetrao* ; Perdrix, *Perdix* ; Tinamou, *Tinamus* ; Tridactyle, *Tridactylus* ; Paon, *Pavo* ; Faisan, *Phasianus* ; Peintade, *Numidia* ; Dindon, *Meleagris* ; Hocco, *Crax* ; Pénélope, *Penelope* ; Gouan, *Gouan*.

SECONDE SOUS-CLASSE.

Le bas de la jambe dénué de plumes, ou plusieurs doigts réunis par une large membrane.

PREMIÈRE DIVISION.

Trois doigts devant, un doigt ou point de doigt derrière.

Première Sous-division.

Doigts de devant réunis par une membrane.

OISEAUX D'EAU.

XXII Ordre, bec crochu.

Flammant, *Phaenicopterus* ; Albatrosse, *Diomedea* ; Pélécanoïde, *Pelecanoides* ; Pétrel, *Procellaria*.

XXIII Ordre, bec dentelé.

Canard, *Anas* ; Harle, *Mergus* ; Prion, *Prion*.

XXIV Ordre, bec droit et comprimé.

Bec-en-ciseau, *Rhyncops* ; Plongeon, *Urinator* ; Grèbe, *Colymbus* ; Guillemot, *Uria* ; Alque, *Alca* ; Pingouin, *Pingouin* ; Manchot, *Aptenodytes*.

XXV Ordre, bec droit et menu.

Sterne, *Sterna*.

XXVI Ordre, bec arqué.

Avocette, *Recurvirostra*.

XXVII Ordre, bec renflé.

Mauve, *Larus*.

Deuxième Sous-division.

Quatre doigts réunis par une large membrane.

OISEAUX D'EAU LATIRÈMES.

XXVIII Ordre, bec crochu.

Frégate, *Fregata* ; Cormoran, *Carbo*.

XXIX Ordre, bec dentelé.

Fou, *Sula* ; Phaëton, *Phaëton* ; Anhinga, *Plotus*.

XXX Ordre, bec droit et déprimé.

Pélican, *Pelecanus*.

Troisième Sous-division.

Doigts réunis à leur base par une membrane.

OISEAUX DE RIVAGE.

XXXI Ordre, bec crochu.

Messenger, *Serpentarius* ; Kamichi, *Palamedea* ; Glaréole, *Glareola*.

XXXII Ordre, bec droit et conique.

Agami, *Psophia* ; Vaginal, *Vaginalis*.

XXXIII Ordre, bec droit et comprimé.

Grue, *Grus* ; Cicogne, *Ciconia* ; Héron, *Ardea* ; Bec-ouvert, *Hians* ; Râle, *Rallus* ; Ombrette, *Scopus* ; Huïtrier, *Hæmatopus*.

XXXIV Ordre, bec droit et déprimé.

Savacou, *Cancroma* ; Spatule, *Platalea*.

XXXV Ordre, bec droit et menu.

Bécasse, *Scolopax*.

XXXVI Ordre, bec arqué.

Jabiru, *Mycteria* ; Ibis, *Ibis* ; Courlis, *Tantalus* ; Echasse, *Macrotarsus*.

XXXVII Ordre, bec renflé.

Hydrogalline, *Hydrogallina* ; Foulque, *Fulica* ; Jacana, *Jacana* ; Vanneau, *Parra* ; Phalarope, *Phalaropus* ; Pluvier, *Charadrius* ; Outarde, *Otis*.

SECONDE DIVISION.

Deux, trois, ou quatre doigts très forts.

Première Sous-division.

Doigts non réunis à leur base par une membrane.

OISEAUX COUREURS.

XXXVIII Ordre, bec droit et déprimé.

Autruche, *Struthio* ; Touyou, *Touyou*.

XXXIX Ordre, bec arqué.

Casoar, *Rhea* ; Dronte, *Didus*.

39 orders, 130 genera.

DUMÉRIL'S SYSTEM. 1806.

I Ordre, RAPACES.

I Fam. Nudicolles ou Ptilodères.—Sarcoramphes, *Sarcoramphus* ; Vautour, *Vultur*.

II Fam. Plumicolles ou Cruphodères.—Griffon, *Gypaëtus* ; Messenger, *Gypogeranus* ; Aigle, *Aquila* ; Buse, *Buteo* ; Autour, *Astur* ; Faucon, *Falco*.

III Fam. Nocturnes ou Nyctérins.—Surnie, *Surnia* ; Duc, *Bubo* ; Chouette, *Strix*.

II Ordre, PASSEREAUX.

I Fam. Crénirostrès ou Glyphoramphes.—Tangara, *Tanagra* ; Piegrèche, *Lanius* ; Gobemouche, *Muscicapa* ; Cotinga, *Ampelis* ; Merle, *Turdus*.

II Fam. Dentirostrès ou Odontoramphes.—Calao, *Buceros* ; Momot, *Momota* ; Phytotome, *Phytotoma*.

III Fam. Plénirostrès ou Pléréoramphes.—Mainate, *Gracula* ; Paradisier, *Paradisea* ; Rollier, *Coracias* ; Corbeau, *Corvus* ; Pie, *Pica*.

IV Fam. Conirostrès ou Conoramphes.—Picbœuf, *Buphaga* ; Glaucopie, *Glaucopis* ; Troupiale, *Icterus* ; Cacique, *Cacicus* ; Étourneau, *Sturnus* ; Bec-croisé, *Crucirostra* ; Loxie, *Loxia* ; Coliou, *Colius* ; Moineau, *Fringilla* ; Bruant, *Emberiza*.

V Fam. Subulirostrès ou Raphioramphes.—Manakin, *Pipra* ; Mésange, *Parus* ; Alouette, *Alauda* ; Becfin, *Sylvia*.

VI Fam. Planirostrès ou Omaloramphes.—Martinet, *Cypselus* ; Hirondelle, *Hirundo* ; Engoulevent, *Caprimulgus*. [*Vociferator*, mihi.]

VII Fam. Ténuirostrès ou Leptoramphes.—Alcyon, *Alcedo*; Todier, *Todus*; Sittelle, *Sitta*; Orthorinque, *Orthorhynchus*; Guépier, *Merops*; Colibri, *Trochilus*; Grimpereau, *Certhia*; Huppe, *Upupa*.

III Ordre, GRIMPEURS.

I Fam. Cuneirostrès ou Sphénoramphes.—Pic, *Picus*; Torcol, *Yunx*; Jacamar, *Galbula*; Ani, *Crotophaga*; Coucou, *Cuculus*.

II Fam. Lévirostrès ou Cénoramphes.—Toucan, *Ramphastos*; Musophage, *Musophaga*; Couroucou, *Trogon*; Touraco, *Touraco*; Barbu, *Bucco*; Ara, *Ara*; Cacatoës, *Cacatua*; Perroquet, *Psittacus*.

IV Ordre, GALLINACÉS.

I Fam. Péristères ou Colombins.—Pigeon, *Columba*.

II Fam. Alectrides ou Domestiques.—Outarde, *Otis*; Paon, *Pavo*; Tétras, *Tetrao*; Faisan, *Phasianus*; Peintade, *Numidia*; Hocco, *Crax*; Guan, *Penelope*; Dindon, *Meleagris*.

III Fam. Brachyptères ou Brevipennes.—Autruche, *Struthio*; Touyou, *Touyou*; Casoar, *Rhea*; Dronte, *Didus*.

V Ordre, ÉCHASSIERS.

I Fam. Pressirostrès ou Ramphostènes.—Jacana, *Jacana*; Râle, *Rallus*; Huîtrier, *Hæmatopus*; Gallinule, *Gallinula*; Foulque, *Fulica*.

II Fam. Cultrirostrès ou Ramphocopes.—Becouvert, *Hians*; Héron, *Ardea*; Cicogne, *Ciconia*; Grue, *Grus*; Jabiru, *Mycteria*; Tantale, *Tantalus*.

III Fam. Latirostrès ou Ramphoplates.—Phénicoptère, *Phænicopterus*; Spatule, *Platalea*; Savacou, *Cancroma*.

IV Fam. Ténuirostrès ou Rampholites.—Avocette, *Avocetta*; Courlis, *Numenius*; Bécasse, *Scolopax*; Vanneau, *Parra*; Pluvier, *Charadrius*.

VI Ordre, PALMIPÈDES.

I Fam. Serrirostres ou Prionoramphes.—Canard, *Anas* ; Harle, *Mergus* ; Flammant, *Ibis*.

II Fam. Pinnipèdes ou Podoptères.—Pélican, *Pelecanus* ; Cormoran, *Cormoranus* ; Frégate, *Fregata* ; Fou, *Sula* ; Phaëton, *Phaëton*.

III Fam. Longipennes ou Macroptères.—Rhincope, *Rhyncops* ; Sterne, *Sterna* ; Pétrel, *Procellaria* ; Albatros, *Diomedea* ; Mauve, *Larus*.

IV Fam. Brevipennes ou Uropodes.—Grèbe, *Podiceps* ; Guillemot, *Uria* ; Alque, *Alca* ; Pingouin, *Pingouin* ; Manchot, *Aptenodytes*.

6 orders, 23 families, 111 genera.

MEYER'S SYSTEM. 1810.

I Order, RAPACES.

I Fam. *Scleropterae*. Diurnal birds of prey.

II Fam. *Malacopterae*. Nocturnal birds of prey.

II Order, CORACES.

Lanius, Corvus, Nucifraga, Coracias, Oriolus, Upupa, Cuculus.

III Order, PICCI.

I Fam. With rigid quills.—*Picus, Certhia.*

II Fam. With soft quills.—*Yunx, Sitta, Tichodroma.*

IV Order, ALCYONES.

Merops, Alcedo.

V Order, OSCINES.

I Fam. *Passerini*.—*Loxia, Fringilla, Plectrophanes, Emberiza.*

II Fam. *Turdoides*.—*Turdus, Bombycivora, Cinclus, Sturnus, Pastor.*

III Fam. *Subulatæ*.—*Muscicapa, Motacilla, Sylvia, Troglodytes, Saxicola, Accentor, Anthus, Alauda, Parus, Regulus.*

VI Order, CHELIDONES.

Hirundo, Cypselus, Caprimulgus.

VII Order, COLUMBÆ.

Columba.

VIII Order, GALLINÆ.

Contains the European *Gallinidæ*.

IX Order, CURSORES.

Otis, Œdicnemus, Cursorius.

X Order, GRALLÆ.

Morinella, &c.

XI Order, NATATORES.

I Fam. *Conirostres*.—*Fulica*, *Podiceps*, *Alca*,
Mormon, *Uria*, *Sterna*, *Larus*, *Lestris*.

II Fam. *Lamellosodentati*.—*Anas*, *Anser*, *Mergus*.

III Fam. *Steganopodes*.—*Pelecanus*, *Carbo*,
Sula.

11 orders, 10 families.

ILLIGER'S SYSTEM. 1811.

I Order, SCANSORES.

I Fam. *Psittacini*.—*Psittacus*, *Pezoporus*.

II Fam. *Serrati*.—*Ramphastos*, *Pteroglossus*, *Pogonias*, *Corythaix*, *Trogon*, *Musophaga*.

III Fam. *Amphiboli*.—*Crotophaga*, *Scytrops*, *Bucco*, *Tamatia*, *Cuculus*, *Centropus*.

IV Fam. *Sagittilingues*.—*Yunx*, *Picus*.

V Fam. *Syndactyli*.—*Galbula*.

II Order, AMBULATOIRES.

VI Fam. *Angulirostres*.—*Alcedo*, *Merops*.

VII Fam. *Suspensi*.—*Trochilus*.

VIII Fam. *Tenuirostres*.—*Nectarinia*, *Tichodroma*, *Upupa*.

IX Fam. *Pigarrhigi*.—*Certhia*, *Dendrocolaptes*.

X Fam. *Gregarii*.—*Xenops*, *Sitta*, *Buphaga*, *Oriolus*, *Cassicus*, *Sturnus*.

XI Fam. *Canori*.—*Turdus*, *Cinclus*, *Accentor*, *Motacilla*, *Saxicola*, *Sylvia*, *Muscicapa*, *Tyrannus*, *Muscipeta*, *Myothera*, *Lanius*, *Sparactes*, *Todus*, *Pipra*.

XII Fam. *Passerini*.—*Parus*, *Alauda*, *Anthus*, *Emberiza*, *Tanagra*, *Fringilla*, *Loxia*, *Colius*, *Glaucoptis*, *Phytotoma*.

XIII Fam. *Dentirostres*.—*Prionites*, *Buceros*.

XIV Fam. *Coraces*.—*Corvus*, *Coracias*, *Paradisea*, *Cephalopterus*, *Gracula*.

XV Fam. *Sericati*.—*Ampelis*, *Procnias*.

XVI Fam. *Hiantes*.—*Hirundo*, *Cypselus*, *Caprimulgus*.

III Order, RAPTATORES.

XVII Fam. *Nocturni*.—*Strix*.XVIII Fam. *Accipitrini*.—*Falco*, *Gypogeranus*, *Gypaëtus*.XIX Fam. *Vulturini*.—*Vultur*, *Cathartes*.

IV Order, RASORES.

XX Fam. *Gallinacei*.—*Numidia*, *Meleagris*, *Penelope*, *Crax*, *Opisthocomus*, *Pavo*, *Phasianus*, *Gallus*, *Menura*, *Tetrao*, *Perdix*.XXI Fam. *Epollicati*.—*Ortygis*, *Syrhaptus*.XXII Fam. *Columbini*.—*Columba*.XXIII Fam. *Crypturi*.—*Crypturus*.XXIV Fam. *Inepti*.—*Didus*.

V Order, CURSORES.

XXV Fam. *Proceri*.—*Casuarius*, *Struthio*, *Rhea*.XXVI Fam. *Campestres*.—*Otis*.XXVII Fam. *Littorales*.—*Charadrius*, *Calidris*, *Himantopus*, *Hæmatopus*, *Tachydromus*, *Burhinus*.

VI Order, GRALLATORES.

XXVIII Fam. *Vaginati*.—*Chionis*.XXIX Fam. *Alectorides*.—*Glareola*, *Cereopsis*, *Dicolophus*, *Palamedea*, *Chauna*, *Psophia*.XXX Fam. *Herodii*.—*Grus*, *Ciconia*, *Ardea*, *Eurypyga*, *Scopus*, *Cancroma*, *Anastomus*.XXXI Fam. *Falcati*.—*Tantalus*, *Ibis*.XXXII Fam. *Limicolæ*.—*Numenius*, *Scolopax*, *Eurenetes*, *Actitis*, *Tringa*, *Totanus*, *Limosa*, *Strepsilas*.XXXIII Fam. *Macroductyli*.—*Parra*, *Rallus*, *Crex*.XXXIV Fam. *Lobipedes*.—*Fulica*, *Podia*, *Phalaropus*.XXXV Fam. *Hygrobatæ*.—*Corrixa*, *Recurrirostra*, *Platalea*, *Phænicopterus*.

VII Order, NATATOIRES.

XXXVI Fam. *Longipennes*.—*Rhyncops*, *Sterna*, *Larus*, *Lestris*.

XXXVII Fam. *Tubinares*.—*Procellaria*, *Haladroma*, *Pachyptila*, *Diomedea*.

XXXVIII Fam. *Lamellosodentati*.—*Anas*, *Anser*, *Mergus*.

XXXIX Fam. *Steganopodes*.—*Pelecanus*, *Halieus*, *Dysporus*, *Phaëton*, *Plotus*.

XL Fam. *Pygopodes*.—*Colymbus*, *Eudytes*, *Uria*, *Mormon*, *Alca*.

XLI Fam. *Impennes*.—*Aptenodytes*.

7 orders, 41 families, 155 genera.

TEMMINCK'S SYSTEM. 1815.

I Ordre, RAPACES.—Vautour, *Vultur*; Catharte, *Cathartes*; Gypaëte, *Gypaëtus*; Messenger, *Gypogeryanus*; Faucon, *Falco*; Chouette, *Strix*.

II Ordre, OMNIVORES.—Sasa, *Opisthocomus*; Calao, *Buceros*; Motmot, *Prionites*; Corbeau, *Corvus*; Casse-noix, *Nucifraga*; Pyrrhocorax, *Pyrrhocorax*; Cassican, *Barita*; Glaucopé, *Glaucopis*; Mainate, *Gracula*; Pique-bœuf, *Buphaga*; Jaseur, *Bombycivora*; Piroll, *Ptilonorhynchus*; Rollier, *Coracias*; Rolle, *Colaris*; Lorient, *Oriolus*; Troupiale, *Icterus*; Étourneau, *Sturnus*; Martin, *Pastor*; Oiseau de Paradis, *Paradisea*; Stourne, *Lamprolornis*.

III Ordre, INSECTIVORES.—Merle, *Turdus*; Cincle, *Cinclus*; Lyre, *Menura*; Brève, *Pitta*; Fourmilier, *Myothera*; Batara, *Thamnophilus*; Vanga, *Vanga*; Piegrièche, *Lanius*; Bécarde, *Psaris*; Bec-de-fer, *Sparactes*; Langrayen, *Ocypterus*; Crinon, *Criniger*; Drongo, *Edolius*; Echenilleux, *Ceblephyris*; Coracine, *Coracina*; Cotinga, *Ampelis*; Averano, *Casmarhinchos*; Procné, *Procnias*; Rupicole, *Rupicola*; Tanmanak, *Phibalura*; Manakin, *Pipra*; Pardalote, *Pardalotus*; Todier, *Todus*; Platyrhinque, *Platyrhinchos*; Moucherolle, *Muscipeta*; Gobe-mouche, *Muscicapra*; Mérion, *Malurus*; Becfin, *Sylvia*; Tra-

quet, *Saxicola* ; Accenteur, *Accentor* ; Bergeronnette, *Motacilla* ; Pipit, *Anthus*.

IV Ordre, GRANIVORES.—Alouette, *Alauda* ; Mésange, *Parus* ; Bruant, *Emberiza* ; Tangara, *Tanagra* ; Tisserin, *Ploceus* ; Bec-croisé, *Loxia* ; Psittasin, *Psittirostra* ; Bouvreuil, *Pyrrhula* ; Grosbec, *Fringilla* ; Phytotome, *Phytotoma* ; Coliou, *Colius*.

V Ordre, ZYGODACTYLI.—Fam. 1.—Touraco, *Musophaga* ; Indicateur, *Indicator* ; Coucou, *Cuculus* ; Coua, *Coccyzus* ; Coucal, *Centropus* ; Malcoha, *Phœnicophaus* ; Courol, *Leptosomus* ; Scythrops, *Scythrops* ; Aracari, *Pteroglossus* ; Toucan, *Ramphastos* ; Ani, *Crotophaga* ; Couroucou, *Trogon* ; Tamatia, *Capito* ; Barbu, *Bucco* ; Barbican, *Pogonias* ; Perroquet, *Psittacus*. Fam. 2.—Pic, *Picus* ; Jacamar, *Galbula* ; Torcol, *Yunx*.

VI Ordre, ANISODACTYLI.—Oxyrinque, *Oxyruncus* ; Torchepot, *Sitta* ; Onguiculé, *Orthonyx* ; Picucule, *Dendrocolaptes* ; Sittine, *Xenops* ; Grimpart, *Anabates* ; Ophie, *Opetiorhynchus* ; Grimpe-reau, *Certhia* ; Guit-guit, *Cœreba* ; Colibri, *Trochilus* ; Souimanga, *Nectarinia* ; Échelet, *Climacteris* ; Tichodrome, *Tichodroma* ; Huppe, *Upupa* ; Promerops, *Epimachus* ; Héorotaire, *Drepanis* ; Philedon, *Meliphaga*.

VII Ordre, ALCIONES.—Guépier, *Merops* ; Martin-pêcheur, *Alcedo* ; Martin-chasseur, *Dacelo*.

VIII Ordre, CHELIDONES.—Hirondelle, *Hirundo* ; Martinet, *Cypselus* ; Engoulevent, *Caprimulgus*.

IX Ordre, COLUMBÆ.—Pigeon, *Columba*.

X Ordre, GALLINÆ.—Paon, *Pavo* ; Coq, *Gallus* ; Faisan, *Phasianus* ; Lophophore, *Lophophorus* ; Éperonnier, *Polyplectron* ; Dindon, *Meleagris* ; Argus, *Argus* ; Pintade, *Numidia* ;

Pauxi, *Pauxi*; Hocco, *Crax*; Pénélope, *Penelope*; Tétrás, *Tetrao*; Ganga, *Pterocles*; Hétéroclite, *Syrrhaptés*; Perdrix, *Perdix*; Cryptonyx, *Cryptonyx*; Tinamou, *Tinamus*; Turnix, *Hemipodius*.

XI Ordre, ALECTORIDES.—Agami, *Psophia*; Caziama, *Dicholophus*; Glaréole, *Glareola*; Kamichi, *Palamedea*; Chavaria, *Chauna*.

XII Ordre, CURSORES.—Autruche, *Struthio*; Rhea, *Rhea*; Casoar, *Casuarus*; Outarde, *Otis*; Courtvite, *Cursorius*.

XIII Ordre, GRALLATOIRES.—Fam. 1.—Oedicnème, *Ædicnemus*; Sanderling, *Calidris*; Falcinelle, *Falcinellus*; Échasse, *Himantopus*; Huitierier, *Hœmatopus*; Pluvier, *Charadrius*. Fam. 2.—Vanneau, *Vanellus*; Tournepierré, *Strepsilas*; Grue, *Grus*; Courlan, *Aramus*; Héron, *Ardea*; Cicogne, *Ciconia*; Becouvert, *Anastomus*; Ombrette, *Scopus*; Flammant, *Phœnicopterus*; Avocette, *Recurvirostra*; Savacou, *Cancroma*; Spatule, *Platalea*; Tantale, *Tantalus*; Ibis, *Ibis*; Courlis, *Numenius*; Bécasseau, *Tringa*; Chevalier, *Totanus*; Barge, *Limosa*; Bécasse, *Scolopax*; Rhynchue, *Rhynchœa*; Curale, *Eurypyga*; Râle, *Rallus*; Poule d'eau, *Gallinula*; Jacana, *Parra*; Talève, *Porphyrio*.

XIV Ordre, PINNATIPÈDES.—Foulque, *Fulica*; Grêbefoulque, *Podia*; Phalarope, *Phalaropus*; Grêbe, *Podiceps*.

XV Ordre, PALMIPÈDES.—Céréopse, *Cereopsis*; Bec-en-fourreau, *Chionis*; Bec-en-ciseau, *Rhynchops*; Hirondelle de mer, *Sterna*; Mauve, *Larus*; Stercoraire, *Lestris*; Pétrel, *Procellaria*; Prion, *Pachyptila*; Pélécanoïde, *Haladroma*; Albatros, *Diomedea*; Canard, *Anas*; Harle, *Mergus*; Pélican, *Pelecanus*; Cormoran, *Carbo*; Frégate, *Tachypetes*; Fou, *Sula*; Anhinga, *Plotus*; Paille-

en-queue, *Phaëton* ; Guillemot, *Uria* ; Starique, *Phaleris* ; Macareux, *Mormon* ; Pingouin, *Alca* ; Sphénisque, *Spheniscus* ; Manchot, *Aptenodytes*.

XVI Ordre, INERTES.—Apteryx, *Apteryx* ; Dronte, *Didus*.

16 orders, 202 genera.

CUVIER'S SYSTEM. 1817.

I Ordre, OISEAUX DE PROIE.

DIURNES. Les Vautours.—Vautour, *Vultur*; Sarcoramphé, *Sarcoramphus*; Percnoptère, *Neophron*; Griffon, *Gypaëtos*.

Les Faucons.—Faucon, *Falco*; Gerfaut, *Hierofalco*; Aigle, *Aquila*; Aiglepêcheur, *Haliæetus*; Orfraye, *Pygargus*; Balbusard, *Pandion*; Harpie, *Harpyia*; Aigle-autour, *Morphnus*; Cymindis, *Cymindis*; Autour, *Astur*; Épervier, *Nisus*; Milan, *Milvus*; Bondrée, *Pernis*; Buse, *Buteo*; Busard, *Circus*; Messenger, *Serpentarius*.

NOCTURNES. Les Strix.—Hibou, *Otus*; Chouette, *Ulula*; Effraye, *Strix*; Chat-huant, *Syrnium*; Duc, *Bubo*; Chevêche, *Noctua*; Chouette-à-aigrettes, ———? Scops, *Scops*.

II Ordre, PASSEREAUX.

DENTIROSTRES. Les Piegrièches.—Piegrièche, *Lanius*; Ocyptère, *Ocypterus*; Cassican, *Barita*; Bécarde, *Psaris*; Choucaris, *Graucalus*; Béthyle, *Bethylus*.

Les Tangaras.—Bouvreuil, ———? Grosbec, ———? Tangara, *Tanagra*; Tangara-loriot, ———? Tangara-cardinal, ———? Tangara-ramphocèles, ———?

Les Gobe-mouches.—Tyran, *Tyrannus*; Moucherolle, *Muscipeta*; Gobe-mouche, *Muscicapa*; Gymocéphale, *Gymnocephalus*; Céphaloptère, *Cephalopterus*; Cotinga, *Ampelis*; Echenilleur, *Ceblepyris*; Jaseur, *Bombycivora*; Procnias,

Procnias ; Gymnodère, *Gymnoderus* ; Drongo, *Edolius*.

Les Merles.—Merle, *Merula* ; Grive, *Turdus* ; Chocard, *Pyrrhocorax* ; Lorient, *Oriolus* ; Fourmilier, *Myothera* ; Cincle, *Cinclus* ; Philédon, *Philedon* ; Martin, *Gracula* ; Lyre, *Mænura*.

Les Manakins.—Coq de roche, *Rupicola* ; Manakin, *Pipra*.

Les Becfins.—Traquet, *Saxicola* ; Rubiette, *Sylvia* ; Fauvette, *Curruca* ; Accentor, *Accentor* ; Roi-telet, *Regulus* ; Troglodyte, *Troglodytes* ; Hoche-queue, *Motacilla* ; Bergeronnette, *Budytes* ; Farlouse, *Anthus*.

FISSIROSTRES. Les Hirondelles.—Martinet, *Apus* ; Hirondelle, *Hirundo*.

Les Engoulevents.—Podarge, *Podargus* ; Engoulevent, *Caprimulgus*. [*Vociferator*, N. Wood.]

CONIROSTRES. Les Alouettes.—Alouette, *Alauda* ; Calandre, *Calandra* ; Sirli, ——— ?

Les Mésanges.—Mésange, *Parus* ; Moustache, *Calamophilus* ; Remiz, *Icterus*.

Les Bruants.

Les Moineaux.—Tisserin, *Ploceus* ; Moineau, *Pyrgita* ; Pinçon, *Fringilla* ; Linotte et Chardonneret, *Carduelis* ; Veuve, *Vidua* ; Grosbec, *Coccothraustes*.

Les Pityles.—Pitylus, *Pitylus*.

Les Bouvreuils.—Bouvreuil, *Pyrrhula*.

Les Bec-croisés.—Bec-croisé, *Loxia*.

Les Durbecs.—Durbec, *Corythus*.

Les Colious.—Coliou, *Colius*.

Les Glaucopes.—Glaucope, *Glaucopis*.

Les pique-bœufs.—Pic-bœuf, *Buphaga*.

Les Cassiques.—Cassique, *Cassicus* ; Troupiale, *Icterus* ; Carouge, *Xanthornus* ; Pitpit, *Dacnis*.

Les Etourneaux.—Étourneau, *Sturnus*.

Les Sittelles.—Sittelle, *Sitta*.

Les Corbeaux.—Corbeau, *Corvus* ; Pie, *Pica* ;

Geai, *Garrulus* ; Casse-noix, *Caryocatactes* ; Té-
mia, *Temia*.

Les Rolliers.—Rollier, *Coracias* ; Rolle, *Colaris* ;
Mainate, *Eulabes*.

Les Paradisiers.—Paradisier, *Paradisea*.

TÉNUIROSTRES. Les Huppes.—Crave, *Fregi-
lus* ; Huppe, *Upupa* ; Promerops, *Promerops* ;
Épimaches, *Epimachus*.

Les Grimpereaux.—Grimpereau, *Certhia* ; Pi-
cucule, *Dendrocolaptes* ; Échelet, *Tichodroma* ;
Sucrier, *Nectarinia* ; Dicée, *Dicæum* ; Héorotaire,
Drepanis ; Souimanga, *Cinnyris*.

Les Colibris.—Colibri, *Trochilus* ; Oiseau-
mouche, *Orthorhynchus*.

SYNDACTYLES. Les Guêpiers.—Guêpier, *Me-
rops*.

Les Motmots.—Motmot, *Prionites*.

Les Martin-pêcheurs.—Martinpêcheur, *Alcedo*.

Les Ceyx.—Ceyx, *Ceyx*.

Les Todiers.—Todier, *Todus*.

Les Calaos.—Calao, *Buceros*.

III Ordre, GRIMPEURS.

Les Jacamars.—Jacamar, *Galbula* ; Jacamerops,
Jacamerops.

Les Pics.—Pic, *Picus*.

Les Picoïdes.—Picoïde, *Picoïdes*.

Les Torcols.—Torcol, *Yunx*.

Les Coucous.—Coucou, *Cuculus* ; Coua, *Coc-
cyzus* ; Coucal, *Centropus* ; Courol, *Leptosomus* ;
Indicateur, *Indicator* ; Barbacou, ——— ? Mal-
coha, *Phænicophaus*.

Les Scythrops.—Scythrops, *Scythrops*.

Les Barbus.—Barbican, *Pogonias* ; Barbu, *Buc-
co* ; Tamatia, *Capito*.

Les Couroucous.—Couroucou, *Trogon*.

Les Anis.—Ani, *Crotophaga*.

Les Toucans.—Toucan, *Ramphastos*.

Les Perroquets.—Ara, *Ara* ; Perruche, ——— ?
Cacatoës, *Cacatua* ; Perroquet, *Psittacus* ; Perroquet à trompe, ——— ? Pézopore, *Pezoporus*.

Les Touracos.—Touraco, *Corythaix*.

Les Musophages.—Musophage, *Musophaga*.

IV Ordre, GALLINACÉS.

Les Paons.—Paon, *Pavo*.

Les Dindons.—Dindon, *Meleagris*.

Les Alectors.—Hocco, *Crax* ; Pauxi, *Ourax* ; Guan, *Penelope* ; Parraquas, *Ortalida*.

Les Hoazins.—Hoazin, *Opisthocomus*.

Les Faisans.—Coq, *Gallus* ; Faisan, *Phasianus* ; Houppifère, ——— ? Lophophore, *Lophophorus* ; Cryptonyx, *Cryptonyx*.

Les Peintades.—Peintade, *Numidia*.

Les Tétrars.—Coq de bruyère, *Lagopus* ; Perdrix, *Perdix* ; Francolin, *Francolinus* ; Caille, *Coturnix* ; Colin, *Ortyx* ; Tridactyle, *Hemipodius* ; Turnix, *Ortygis* ; Syrrhaptès, *Syrrhaptès* ; Tinamou, *Tinamus*.

Les Pigeons.—Colombi-galline, *Goura* ; Colombe, *Columba* ; Colombar, *Vinago*.

V Ordre, ÉCHASSIERS.

BREVIPENNES. Les Autruches.—Autruche, *Struthio*.

Les Casoars.—Casoar, *Casuarus*.

PRESSIROSTRES.—Les Outardes.—Outarde, *Otis*.

Les Pluviers.—Œdicnème, *Œdicnemus* ; Pluvier, *Charadrius*.

Les Vanneaux.—Vanneau-pluvier, *Squatarola* ; Vanneau, *Vanellus*.

Les Huîtriers.—Huîtrier, *Hæmatopus*.

Les Coure-vites.—Coure-vite, *Cursorius*.

Les Cariamas.—Cariama.—*Microdactylus*.

CULTRIHOSTRES. Les Grues.—Agami, *Psophia* ; Numidique, *Anthropoides* ; Grue, *Grus* ; Courlan, *Botaurus* ; Caurale, *Eurypyga*.

Les Savacous.—Savacou, *Cancroma*.

Les Hérons.—Héron, *Ardea*.

Les Cicognes.—Cicogne, *Ciconia*.

Les Jabirus.—Jabiru, *Mycteria*.

Les Ombrettes.—Ombrette, *Scopus*.

Les Bec-ouverts.—Bec-ouvert, *Hians*.

Les Tantales.—Tantale, *Tantalus*.

Les Spatules.—Spatule, *Platalea*.

LONGIROSTRES. Les Ibis.—Ibis, *Ibis*.

Les Courlis.—Courlis, *Numenius* ; Courlieu, *Phaeopus* ; Falcinelle, *Falcinellus*.

Les Bécasses.—Bécasse, *Scolopax* ; Rhynchée, *Rhynchoea* ; Barge, *Limosa* ; Maubèche, *Calidris* ; Alouette de mer, *Pelidna* ; Combattant, *Machetes* ; Sanderling, *Arenaria* ; Phalarope, *Phalaropus* ; Tournepierre, *Strepsilas* ; Chevalier, *Totanus* ; Lobipède, *Lobipes* ; Échasse, *Himantopus*.

Les Avocettes.—Avocette, *Recurvirostra*.

MACRODACTYLES.—Les Jacanas.—Jacana, *Parara*.

Les Kamichis.—Kamichi, *Palamedea*.

Les Râles.—Râle, *Rallus*.

Les Foulques.—Poule d'eau, *Gallinula* ; Talève, *Porphyrio* ; Foulque, *Fulica*.

Les Giaroles.—Giarole, *Glareola*.

Les Flammants.—Flammant, *Phaenicopterus*.

VI Ordre, PALMIPÈDES.

PLONGEURS. Les Plongeurs.—Grèbe, *Podiceps* ; Plongeon, *Colymbus* ; Guillemot, *Uria* ; Cephus, *Cephus*.

Les Pingouins.—Macareaux, *Fratercula* ; Pingouin, *Alca*.

Les Manchots.—Manchot, *Aptenodytes* ; Gorfou, *Catarrhactes* ; Sphénisque, *Spheniscus*.

LONGIPENNES. Les Pétrels.—Pétrel, *Procellaria* ; Puffin, *Puffinus* ; Pélécanoïde, *Haladroma* ; Prion, *Pachyptila*.

Les Albatrosses.—Albatros, *Diomedea*.

Les Goëlands.—Goëland, *Larus*; Stercoraire, *Lestris*.

Les Hirondelles de mer.—Sterne, *Sterna*; Noddi, *Anoüs*.

Les bec-en-ciseaux.—Bec-en-ciseau, *Rhyncops*.

TOTIPALMES. Les Pélicans.—Pélican, *Pelecanus*; Cormoran, *Carbo*; Frégate, *Fregata*; Fou, *Sula*.

Les Anhinga.—Anhinga, *Plotus*.

Les Paille-en-queue.—Paille-en-queue, *Phaëton*.

LAMELLIROSTRES. Les Canards.—Cygne, *Cygnus*; Oie, *Anser*; Bernache, *Bernicla*; Canard, *Anas*; Macreuse, *Oidemia*; Garrot, *Clangula*; Eider, *Somateria*; Millouin, *Fuligula*; Souchet, *Spathulea*; Tadorne, *Tadorna*; Sarcelle, *Querquedula*.

Les Harles.—Harle, *Mergus*.

6 orders, 16 families, 263 genera.

BLAINVILLE'S

Type I, Ostéozaires.—

Oiseaux dont les membres pelviens sont :	Médiocres doigts.	Anomaux	Préhenseurs
			Ravisseurs.....
			Variables
	Normaux	Libres ou presque libres	
		Un peu réunis par une Membrane.	{ Longue ... Courtes...
		Les ailes	
	Fort longs en général Les ailes	Inutiles au vol	
		Utiles.....	
	Courts ; les doigts palmés		

SYSTEM. 1815.

Sous-type II, Ovipares. Classe II, Oiseaux.

<i>Prehensores</i>	<i>Psittacus</i> .
<i>Raptatores</i> .. {	Diurnes { <i>Anomaux. Serpentarius.</i>
	Nocturnes { <i>Normaux. Falco.</i>
	..... <i>Strix.</i>
<i>Scansores</i> {	Hétérodactyles .. { <i>Latirostres. Caprimulgus.</i>
	..... { <i>Altirostres. Crotophaga.</i>
	Zygodactyles <i>Cuculus, Picus.</i>
	Syndactyles..... <i>Alcedo.</i>
<i>Saltatores</i> ... {	Faux { <i>Subulirostres. Trochilus.</i>
	..... { <i>Cultrirostres. Corvus.</i>
	..... { <i>Longirostres. Turdus.</i>
	Vrais { <i>Ténuirostres. Motacilla.</i>
	..... { <i>Crénirostres. Lanius.</i>
	..... { <i>Conirostres. Fringilla.</i>
<i>Sponsores</i>	<i>Columba.</i>
<i>Gradatores</i> .. {	Longicaudes <i>Phasianus.</i>
	Brevicaudes <i>Perdix.</i>
<i>Cursores</i>	<i>Struthio.</i>
	Gallinogralles <i>Psophia, Otis.</i>
<i>Grallatores</i> .. {	Tachydromes { <i>Microrhynques. Tringa.</i>
	..... { <i>Macrorhynques. Scolopax.</i>
	..... { <i>Hétérorhynques. Phænicopterus.</i>
	Ciconiens <i>Ciconia.</i>
	Macroductyles <i>Rallus.</i>
	Macroptères <i>Larus.</i>
<i>Natatores</i> .. {	Syphonorhiniens.... <i>Procellaria.</i>
	Cryptorhiniens..... <i>Pelecanus.</i>
	..... { <i>Ailés. Anas.</i>
	Colymbiens { <i>Subailés. Mergus.</i>
	..... { <i>Inailés. Aptenodytes.</i>

VIEILLOT'S SYSTEM. 1816.

I Ordre, ACCIPITRES.

I Tribu, Diurnes.

I Fam. *Vautourins*.—Vautour, Zopilote, Gallinaze, Iribin, Rancaca, Caracara.

II Fam. *Gypaètes*.—Phène.

III Fam. *Accipitrins*.—Aigle, Pygargue, Balbusard, Circaète, Busard, Buse, Milan, Elanus, Ictinie, Faucon, Physète, Harpie, Spizaète, Asturine, Épervier.

II Tribe, Nocturnes.

IV Fam. *Œgoliens*.—Chouette.

II Ordre, SYLVAINS.

I Tribu, Zygodactyles.

I Fam. *Psittacins*.—Perroquet, Ara, Kakatoës.

II Fam. *Macroglosses*.—Pic, Torcol.

III Fam. *Auréoles*.—Jacamar.

IV Fam. *Ptéroglosses*.—Toucan.

V Fam. *Barbus*.—Couroucou, Barbican, Barbus, Cabézon, Monase, Malkoha.

VI Fam. *Imberbes*.—Tacco, Scythrops, Vouroudriou, Coulicou, Coucou, Indicateur, Toulou, Ani.

VII Fam. *Frugivores*.—Musophage, Touraco.

II Tribu, Anisodactyles.

VIII Fam. *Granivores*.—Phytotome, Coliou, Bec-croisé, Durbec, Bouvreuil, Grosbec, Fringille, Sizerin, Passerine, Bruant.

IX Fam. *Ægithales*.—Mésange, Mégistine, Tyranneau, Pardalotte, Manakin.

X Fam. *Péricalles*.—Phibalure, Viréon, Némosie, Tangara, Habia, Arremon, Touit, Jacapa, Pyranga, Tachyphone.

XI Fam. *Tisserands*.—Loriot, Malimbe, Ictérie, Carouge, Baltimore, Troupiale, Cassique.

XII Fam. *Leimonites*.—Stournelle, Étourneau, Pic-bœuf.

XIII Fam. *Caronculés*.—Glaucopé, Dilopé, Créadion, Mainate.

XIV Fam. *Manucodiates*.—Sifilet, Lophorine, Manucode, Samalie.

XV Fam. *Coraces*.—Corbeau, Pie, Geai, Casse-noix, Coracias, Choquard, Témia, Astrapie, Quiscalé, Cassican, Rollier.

XVI Fam. *Baccivores*.—Rolle, Coracine, Piau-hau, Jaseur, Cotinga, Tersine.

XVII Fam. *Chélidons*.—Hirondelle, Martinet, Engoulevent, Ibijau.

XVIII Fam. *Myothères*.—Platyrhynque, Todier, Conopophage, Gallite, Échenilleur, Moucherolle, Tyran, Bécarde.

XIX Fam. *Collurions*.—Piegrèche, Falconelle, Sparacte, Lanion, Batara, Pillurion, Drongo, Vanga, Bagadai, Gonolek, Langraïen.

XX Fam. *Chanteurs*.—Merle, Esclave, Sphécothère, Martin, Psaröide, Gralline, Aguassière, Brève, Grallarie, Fourmilier, Pégot, Mouchet, Motteux, Alouette, Pipi, Hoche-queue, Mériön, Ægithine, Fauvette, Roitelet, Troglodyte.

XXI Fam. *Grimpereaux*.—Thriothore, Mniotilde, Sittine, Sittelle, Pyrrote, Picchion, Grimpereau, Picucule.

XXII Fam. *Anthomysses*.—Guit-guit, Souimanga, Colibri, Héorotaire.

XXIII Fam. *Epopsides*.—Polochion, Fournier, Puput, Promerops.

XXIV Fam. *Pelmatodes*.—Guêpier, Martin-pêcheur.

XXV Fam. *Antriades*.—Rupicole.

XXVI Fam. *Prionotes*.—Momot, Calao.

XXVII Fam. *Porte-lyres*.—Ménure.

XXVIII Fam. *Ophiophages*.—Hoazin.

XXIX Fam. *Colombins*.—Théron, Pigeon, Goura.

XXX Fam. *Alectrides*.—Marail.

III Ordre, GALLINACÉS.

I Fam. *Nudipèdes*.—Hocco, Dindon, Paon, Éperonnier, Argus, Faisan, Coq, Monaul, Peintade, Rouloul, Tocco, Perdrix, Tinamou, Ortygode.

II Fam. *Plumipèdes*.—Tétras, Lagopède, Ganga, Hétéroclite.

IV Ordre, ÉCHASSIERS.

I Tribu, Di-tridactyles

I Fam. *Mégistanes*.—Autruche, Nandou, Casoar, Emou.

II Fam. *Pédionomes*.—Outarde.

III Fam. *Ægialites*.—Ædicnème, Échasse, Huitrier, Érolie, Court-vite, Pluvian, Sanderling, Pluvier.

II Tribu, Tétradactyles.

IV Fam. *Elonomes*.—Vanneau, Tournepierré, Tringa, Chevalier, Chorlite, Bécassine, Bécasse, Barge, Caurale, Courlis.

V Fam. *Falcirostres*.—Ibis, Tantale.

VI Fam. *Latirostres*.—Spatule, Savacou.

VII Fam. *Hérodions*.—Ombrette, Bec-ouvert. Courliri, Héron, Cicogne, Jabiru.

VIII Fam. *Ærophones*.—Grue, Anthropeide.

IX Fam. *Coléoramphes*.—Chionis.

X Fam. *Uncirostres*.—Cariama, Secrétaire, Ce-reopsis, Glaréole, Kamichi, Chavaria.

XI Fam. *Hilebates*.—Agami.

XII Fam. *Macronyches*.—Jacana.

XIII Fam. *Macrodactyles*.—Rale, Porzane, Porphyryon, Gallinule.

XIV Fam. *Pinnatipèdes*.—Foulque, Crymophile, Phalarope.

XV Fam. *Palmipèdes*.—Avocette, Phénicoptère.

V Ordre, NAGEURS.

I Tribu, Télépodes.

I Fam. *Syndactyles*.—Frégate, Cormoran, Pélican, Fou, Phaëton, Anhinga.

II Fam. *Plongeurs*.—Héliorne, Grèbe, Plongeon.

III Fam. *Dermorhynques*.—Harle, Oie, Cygne, Canard.

IV Fam. *Pélagiens*.—Stercoraire, Mouette, Sterne, Rhyncope.

II Tribu, Atéléopodes.

V Fam. *Siphorins*.—Pétrel, Albatros.

VI Fam. *Brachyptères*.—Guillemot, Mergule, Macareux, Alque.

III Tribu, Ptiloptères.

VII Fam. *Manchots*.—Gorfou, Aptenodyte.

5 orders, 9 tribes, 58 families, 273 genera.

VIGORS'S SYSTEM. 1825.

Order I, RAPTORES.

I Fam. ——— ?—*Gypogeranus*.

II Fam. Vulturidæ.—*Cathartes*, *Sarcoramphus*,
Gyps, *Vultur*, *Gypaëtus*, *Neophron*.

III Fam. Falconidæ.

1 Subfam. Aquilinæ.

Ibycter, *Daptrius*, *Polyborus*, *Pandion*, *Haliæ-*
tus, *Aquila*, *Harpyia*, *Physeta*, *Morphnus*, *Cymin-*
dis, *Asturina*.

2 Subfam. Accipitrinæ.

Dædalion, *Astur*, *Accipiter*, *Harpagus*, *Gamp-*
sonyx.

3 Subfam. Falconinæ.

Hierax, *Falco*.

4 Subfam. Buteoninæ.

Ictinia, *Circus*, *Pernis*, *Buteo*.

5 Subfam. Milvinæ.

Elanus, *Nauclerus*, *Milvus*.

IV Fam. Strigidæ.

1 Subfam. Noctuinæ.

Surnia, *Noctua*.

2 Subfam. Buboninæ.

Scops, *Bubo*.

3 Subfam. Asioninæ.

Asio.

4 Subfam. Striginæ.

Ulula, *Strix*.

5 Subfam. Syrnianæ.

Syrnium.

V Fam. ——— ?

II Order, INSESSORES.

I Tribe, Fissirostres.

I Fam. Meropidæ.—*Merops*.

II Fam. Hirundinidæ.—*Cypselus*, *Hirundo*.

III Fam. Caprimulgidæ.—*Caprimulgus*, *Podargus*, *Ægotheles*, *Steatornis*, *Nyctibius*.

IV Fam. Todidæ.—*Eurylaimus*, *Eurystomus*, *Todus*.

V Fam. Halcyonidæ.—*Alcedo*, *Halcyon*, *Dacelo*, *Tanysiptera*, *Galbula*, *Capito*, *Monasa*.

Tribe II, Dentiostres.

I Fam. Muscicapidæ.—*Platyrrhynchus*, *Muscicapa*, *Muscipeta*, *Onychorhynchus*, *Vireo*, *Icteria*,

II Fam. Laniadæ.

1 Subfam. Tyranninæ.

Tyrannus, *Tityra*, *Gubernetes*.

2 Subfam. Dicrurinæ.

Artamus, *Dicrurus*, *Trichophorus*, *Irena*.

3 Subfam. Lanianæ.

Sparactes, *Lanius*, *Falcunculus*, *Cyclarhis*, *Lanio*.

4 Subfam. Thamnophilinæ.

Vanga, *Thamnophilus*, *Malaconotus*, *Formicivora*, *Drymophila*, *Laniarius*, *Prionops*.

5 Subfam. Campephaginæ.

Graucalus, *Campephaga*.

III Fam. Merulidæ.

1 Subfam. Myiotherinæ.

Urotomus, *Myiothera*, *Pitta*, *Grallaria*, *Conopophaga*, *Cinclus*, *Chamæza*.

2 Subfam. Merulinæ.

Merula, *Sphecotheres*.

3 Subfam. Oriolinæ.

Oriolus.

4 Subfam. Cossyphinae.

Cossypha, Timalia.

5 Subfam. ——— ?

Petrocincla.

IV Fam. Sylviadæ.

1 Subfam. ——— ?

Hylophilus, Iora, Accentor, Prunella.

2 Subfam. ——— ?

Brachypteryx, Curruca, Ficedula, Ægithina.

3 Subfam. Sylvianæ.

Sylvia, Melizophilus, Synallaxis, Malurus, Troglodytes, Regulus, Tyrannulus.

4 Subfam. Motacillinæ.

Motacilla, Budytes, Enicurus, Anthus, Corydalla, Megalurus.

5 Subfam. Saxicolinæ.

Saxicola.

V Fam. Pipridæ.—*Ægithalus, Parus, Megistina, Pardalotus, Pipra, Rupicola, Calyptomena, Phibalura, Bombycilla, Ampelis, Procnias, Casmarhynchus, Querula, Coracina, Pachycephala.*

Tribe III, Conirostres.

I Fam. Fringillidæ.

1 Subfam. Tanagrinae ?

Euphonia, Nemosia, Tachyphonus, Saltator, Tanagra, Pyrrhula, Ramphopsis, Arremon, Dulus, Pipilo.

2 Subfam. Alaudinæ.

Emberiza, Passerina, Alauda, Mirafra.

3 Subfam. Carduelinæ.

Carduelis, Ploceus.

4 Subfam. Passerinæ.

Fringilla, Passer.

5 Subfam. Pyrrhulinæ.

Linaria, Vidua, Pyrrhula.

II Fam. Sturnidæ.

1 Subfam. Icterinæ.

Xanthornus, Icterus, Sycobius, Quiscalus, Cassicus, Leistes.

2 Subfam. Sturninæ.

Sturnella, Sturnus, Amblyramphus, Dilophus.

3 Subfam. ——— ?

Lamprotornis, Acridotheres.

4 Subfam. ——— ?

Pastor, Grallina.

5 Subfam. ——— ?

Buphaga.

III Fam. Corvidæ.

1 Subfam. ——— ?

Cracticus, Nucifraga.

2 Subfam. Corvinæ.

Pica, Garrulus, Corvus.

3 Subfam. Coracianæ.

Coracias, Gracula, Ptilonorhynchus, Glaucopis, Crypsirina.

4 Subfam. Paradiseanæ.

Astrapia, Parotia, Paradisea, Lophorina, Ciccinnurus, Epimachus.

5 Subfam. ——— ?

Fregilus, Pyrrhocorax.

IV Fam. Buceridæ.—*Buceros, Momotus.*

V Fam. Loxiadæ.—*Phytotoma, Coccothraustes, Pitylus, Loxia, Psittirostra, Colius, Cissopis, Strobilophaga.*

IV Tribe, Scansores.

I Fam. Ramphastidæ.—*Scythrops, Ramphastos, Pteroglossus.*

II Fam. Psittacidæ.

1 Subfam. Psittacinæ.

Psittacus, Androglossa.

2 Subfam. Plectolophinæ.

Plectolophus, Calyptorhynchus, Microglossum.

3 Subfam. *Macrocerinae*.*Macrocerus*.4 Subfam. *Palæorninae*.*Psittacara*, *Nanodes*, *Platycercus*, *Pezoporus*, *Palæornis*, *Trichoglossus*, *Lorius*, *Brotogeris*.5 Subfam. *Psittaculinae*.*Psittacula*.III Fam. *Picidae*.—*Pogonias*, *Bucco*, *Picus*, *Colaptes*, *Yunx*.IV Fam. *Certhiadae*.—*Dendrocolaptes*, *Certhia*, *Climacteris*, *Orthonyx*, *Tichodroma*, *Upupa*, *Sitta*, *Xenops*, *Orthotomus*, *Neops*, *Mniotilta*, *Thriothurus*, *Pyrrota*, *Opetiorhynchus*, *Oxyrhynchus*.V Fam. *Cuculidae*.—*Coccyzus*, *Leptosomus*, *Cuculus*, *Indicator*, *Centropus*, *Saurothera*, *Phænicophaus*, *Crotophaga*, *Trogon*, *Corythaix*, *Musophaga*.V Tribe, *Tenuirostres*.I Fam. *Nectariniadae*.—*Nectarinia*, *Dacnis*, *Furnarius*.II Fam. *Cinnyridae*.—*Cinnyris*, *Dicæum*, *Drepanis*.III Fam. *Trochilidae*.—*Trochilus*, *Mellisuga*.IV Fam. *Promeropidae*.—*Promerops*.V Fam. *Meliphagidae*.—*Meliphaga*, *Melithreptus*, *Creadion*, *Mimetes*, *Sericulus*, *Ptiloris*, *Pomatohinus*, *Prinia*.III Order, *RASORES*.I Fam. *Columbidae*.—*Treron*, *Columba*, *Ptilinopus*, *Lophyrus*.II Fam. *Phasianidae*.—*Meleagris*, *Pavo*, *Diplectron*, *Gallus*, *Monaulus*, *Phasianus*, *Argus*, *Numidia*.III Fam. *Tetraonidae*.—*Liponyx*, *Odontophorus*, *Coturnix*, *Perdix*, *Ganga*, *Tetrao*, *Lagopus*, *Syrrhaptes*, *Ortygis*, *Tinamus*.

IV Fam. Struthionidæ.—*Rhea*, *Struthio*, *Casarius*, *Dromiceius*, *Didus*, *Otis*.

V Fam. Cracidæ.—*Ourax*, *Crax*, *Penelope*, *Ortalida*, *Opisthocomus*, *Menura*, *Megapodius*.

IV Order, GRALLATORES.

I Fam. Gruidæ.—*Psophia*, *Anthropoides*, *Balearica*, *Grus*, *Cariama*.

II Fam. Ardeidæ.—*Aramus*, *Eurypyga*, *Ardea*, *Cancroma*, *Phœnicopterus*, *Platalea*, *Ciconia*, *Mycteria*, *Scopus*, *Anastomus*, *Tantalus*, *Ibis*.

III Fam. Scolopacidæ.—*Numenius*, *Totanus*, *Recurvirostra*, *Limosa*, *Ereunetes*, *Macroramphus*, *Scolopax*, *Rusticola*, *Rynchæa*, *Machetes*, *Pelidna*, *Phalaropus*, *Lobipes*, *Tringa*, *Phæopus*.

IV Fam. Rallidæ.—*Parra*, *Palamedea*, *Chauna*, *Glareola*, *Rallus*, *Chionis*, *Crex*, *Gallinula*, *Porphyrio*, *Podoa*, *Fulica*.

V Fam. Charadriadæ.—*Hæmatopus*, *Calidris*, *Falcinellus*, *Erolia*, *Cursorius*, *Strepsilas*, *Squatarola*, *Vanellus*, *Pluvianus*, *Charadrius*, *Burhinus*, *Himantopus*, *Ædicnemus*.

V Order, NATATORES.

I Fam. Anatidæ.

1 Subfam. Anserinæ.

Anser, *Bernicla*, *Cheniscus*, *Chenolopez*, *Plectropterus*.

2 Subfam. Cereopsinæ.

Cereopsis.

3 Subfam. Anatinæ.

Tadorna, *Cairina*, *Anas*, *Dafila*, *Mareca*, *Querquedula*, *Rhynchapsis*.

4 Subfam. ——— ?

Clangula, *Harelda*, *Fuligula*, *Mergus*, *Somateria*, *Oidemia*, *Biziura*.

5 Subfam. Cygninæ.

Cygnus.

II Fam. Colymbidæ.—*Podiceps*, *Colymbus*.

III Fam. Alcadæ.—*Uria*, *Cephus*, *Mergulus*, *Phaleris*, *Fratercula*, *Alca*, *Spheniscus*, *Catarrhactes*, *Aptenodytes*.

IV Fam. Pelecanidæ.—*Onocrotalus*, *Phalacrocorax*, *Sula*, *Tachypetes*, *Phaëton*, *Plotus*.

V Fam. Laridæ.—*Sterna*, *Rhynchops*, *Larus*, *Stercorarius*, *Diomedea*, *Haladroma*, *Procellaria*, *Pachyptila*, *Puffinus*, *Thalassidroma*.

5 orders, 5 tribes, 45 families, 60 subfamilies, 404 genera.

LATREILLE'S SYSTEM. 1825.

Première section, TERRESTRES.

I Ordre, RAPACES.

I Tribu, Diurnes.

I Fam. *Vautourins*.—Sarcorampe, Vautour, Percnoptère, Griffon.

II Fam. *Accipitrins*.—Aigle, Pygargue, Balbusard, Harpie, Aigle-autour, Asturine, Messenger, Autour, Épervier, Élane, Milan, Bondrée, Buse, Busard, Faucon, Gerfault.

II Tribu, Nocturnes.

III Fam. *Ægoliens*.—Scops, Chevèche, Duc, Chathuant, Effraye, Chouette, Hibou.

II Ordre, PASSEREAUX.

I Fam. *Latirostrés*.—1. Engoulevent, Hirondelle, Martinet. 2. Procnias, Gymnodère, Jaseur, Écheuilleur, Piroll, Cotinga, Céphaloptère, Gymnocéphale, Gobemouche, Moucherolle, Tyran, Drongo.

II Fam. *Dentirostrés*.—Coq de roche, Manakin, Tangara, Piegrièche, Vanga, Langrayen, Crinon, Cassican, Bécarde, Choucari, Béthyle, Merle, Chocard, Lorient, Philédon, Martin, Cincle, Brève, Fourmilier, Lyre, Traquet, Rubiette, Fauvette, Accenteur, Roitelet, Troglodyte, Hochequeue, Bergeronnette, Farlouse.

III Fam. *Conirostrés*.—Alouette, Mésange, Bruant, Tisserin, Moineau, Pinson, Chardonneret, Linotte, Veuve, Grosbec, Pitule, Bouvreuil, Bec-

croisé, Durbec, Coliou, Glaucopé, Étourneau, Cassique, Troupiale, Carouge, Pitpit, Corbeau, Pie, Geai, Casse-noix, Témia, Rollier, Rolle, Mainate, Oiseau-de-paradis, Stourne, Pic-bœuf, Sittelle.

IV Fam. *Ténuirostres*.—Crave, Huppe, Promerops, Épimaque, Grimpereau, Picucule, Échelet, Sucrier, Dicée, Héorotaire, Soui-manga, Pomathorine, Colibri, oiseau-mouche.

V Fam. *Syndactyles*.—Guêpier, Momot, Todier, Martin-pêcheur, Ceyx, Calao.

III Ordre, GRIMPEURS.

I Fam. *Psittacins*.—*I Tribu.* Ara, Perruche, Pézopore, Kakatoës. *II Tribu.* Eurhynque.

II Fam. *Pogonorhynques*.—Ani, Barbacou, Barbu, Tamatia, Barbican, Couroucou, Monase, Malkoha.

III Fam. *Cuculides*.—Scythrops, Coucou, Coua, Coucal, Indicateur, Courol, Jacamar.

IV Fam. *Proglosses*.—Torcol, Picoïde, Pic.

V Fam. *Grandirostres*.—Toucan, Aracari.

VI Fam. *Galliformes*.—Musophage, Touraco.

IV Ordre, PASSERIGALLES.

I Fam. *Dysodes*.—Hoazin.

II Fam. *Columbins*.—Goura, Pigeon, Colombar.

III Fam. *Alectrides*.—Marail, Paraqua.

V Ordre, GALLINACÉS.

I Fam. *Tétradactyles*.—*I Tribu, Nuditarses*.—Pauxi, Hocco, Dindon, Paon, Coq, Faisan, Hou-pifère, Lophophore, Cryptonyx, Peintade, Mégapode, Perdrix, Francolin, Caille. *II Tribu. Plumitarses*.—Ganga, Tétras, Lagopède, Tinamou.

II Fam. *Tridactyles*.—Syrhapte, Turnix.

Deuxième section, AQUATIQUES.

VI Ordre, ÉCHASSIERS.

I Fam. *Brévipennes*.—Autruche, Nandou, Casoar.

II Fam. *Pressirostres*.—Outarde, Œdicnème, Pluvier, Huîtrier, Court-vite, Vanneau, Cariama.

III Fam. *Cultrirostres*.—Agami, Anthropoïde, Grue, Courliri, Caurale, Glaréole, Savacou, Héron, Ombrette, Cicogne, Jabiru, Bec-ouvert, Spatule, Tantale.

IV Fam. *Longirostres*.—Courli, Courlieu, Falcinelle, Bécasse, Rhynchée, Barge, Maubèche, Pélidne, Combattant, Tournepierrière, Chevalier, Sanderling, Échasse.

V Fam. *Ptérodactyles*.—Lobipède, Phalarope, Avocette.

VI Fam. *Macroductyles*.—Jacana, Kamichi, Chauna.

VII Fam. *Pyxidirostres*.—Phœnicoptère.

VII Ordre, PALMIPÈDES.

I Fam. *Lamellirostres*.—Cygne, Oie, Anatique, Canard, Harle.

II Fam. *Totipalmes*.—Pélican, Cormoran, Fou, Anhinga, Paille-en-queue, Frégate.

III Fam. *Longipennes*.—Pétrel, Puffin, Pélécanoïde, Prion, Albatros, Goëland, Mouette, Stercoraire, Sterne, Noddi, Bec-en-ciseau.

IV Fam. *Brachyptères*.—Grèbe, Plongeon, Guillemot, Cephus, Macareux, Pingouin, Sphénisque, Gorfou, Manchot.

7 orders, 30 families, 252 genera.

BLAINVILLE'S SYSTEM. 1815.

(As developed by Lherminier in 1827.)

Oiseaux. I Sous-classe. NORMAUX.

- I Fam. Accipitres, *Accipitres*.
- II Fam. Serpentaires, *Gypogeranus*. Type, genre Messenger, *Serpentarius*.
- III Fam. Chouettes, *Strix*. Type, Effraye.
- IV Fam. Touracos, *Opæthus*. Type, Touraco.
- V Fam. Perroquets, *Psittacus*, Linn.
- VI Fam. Colibris, *Trochilus*, Linn.
- VII Fam. Martinets, *Cypselus*, Ill.
- VIII Fam. Engoulevents, *Caprimulgus*, Linn.
- IX Fam. Coucous, *Cuculus*, Linn.
- X Fam. Couroucous, *Trogon*, Linn.
- XI Fam. Rolliers, *Galgulus*, Briss.
- XII Fam. Guêpiers, *Merops*, Linn.
- XIII Fam. Martinpêcheurs, *Alcedo*, Linn.
- XIV Fam. Calaos, *Buceros*, Linn.
- XV Fam. Toucans, *Ramphastos*, Linn.
- XVI Fam. Pics, *Picus*, Linn.
- XVII Fam. Épopsides, *Epopsides*. Type, Huppe.
- XVIII Fam. Passereaux. *Passeres*, Linn.
- XIX Fam. Pigeons, *Columba*, Linn.
- XX Fam. Gallinacés.
- XXI Fam. Tinamou, *Tinamus*, Lath.
- XXII Fam. Foulques, *Fulica*, Linn.

- XXIII Fam. Grues, *Grus*, Pallas.
XXIV Fam. Hérédions, *Herodii*, Ill.
XXV Fam. *Néant*. Ibis et Spatule.
XXVI Fam. Gralles, *Grallæ*, Linn.
XXVII Fam. Mouettes, *Larus*, Linn.
XXVIII Fam. Pétrels, *Procellaria*, Linn.
XXIX Fam. Pélicans. *Pelecanus*, Linn.
XXX Fam. Canards, *Anas*, Linn.
XXXI Fam. Grèbes, *Podiceps*, Lath.
XXXII Fam. Plongeurs, *Colymbus*, Lath.
XXXIII Fam. Pingouins, *Alca*, Lath.
XXXIV Fam. Manchots, *Aptenodytes*, Forst.

II Sous-classe, ANOMAUX.

- XXXV Fam. Cursores.—Autruche, Nandou,
Casoar, Émou.

LESSON'S SYSTEM. 1828.

I. TERRESTRES.

I Ordre. *Insectores* ou grimpeurs.II Ordre. Passereaux, *Passerini*.III Ordre. Rapaces, *Raptatores*, ou oiseaux de proie.IV Ordre. Gallinacés, *Rasores*.V Ordre. Hétérosomes, *Heterosoma*.

II. AQUATIQUES.

VI Ordre. Échassiers, *Grallatores*.VII Ordre. Pinnatipèdes, *Pinnatipedes*.VIII Ordre. Palmipèdes, *Natatores*.

IX Ordre. Paradoxaux. G. Ornithorhynque.

(Development of Order I.)

I Ordre, INSESSORES.

I Tribu, Zygodactyles.

I Fam. *Psittacées*.—Ara, Perruche, Pézopore, Kakatoës, Microglosse, &c.II Fam. *Pogoniées*.—Ani, Barbacou, Barbu, Tamatia, Barbican, Couroucou, Monase.III Fam. *Cuculées*.—Scythrops, Coucou, Malcoha, Coua, Coucal, Indicateur, Courol, Touraco ? Musophage ?IV Fam. *Picées*.—Torcol, Picoïde, Pic, Picumne.V Fam. *Ramphastidées*.—Toucan, Aracari.

II Tribu, Anisodactyles.

VI Fam. *Sittées*.—Oxyrinque, Torchepot, Onguiculé, Picucule, Sittine, Grimpart, Ophie.

VII Fam. *Certhiadées*.—Crave, Huppe, Promerops, Épimaque, Héorotaire, Philédon, Grimper-eau, Fournier, Tichodrome, Sucrier, Dicée, Échelet.

VIII Fam. *Cinnyridées*.—Souimanga, Pomathorin, Colibri, Oiseau-mouche, Guitguit.

III Tribu, Syndactyles.

IX Fam. *Méropidées*.—Guêpier, Jacamar ? Momot.

X Fam. *Alcyonées*.—Todier, Martinpêcheur, Ceyx.

XI Fam. *Rupicolées*.—Rupicole, Manakin.

XII Fam. *Buceridées*.—Buceros.

FLEMING'S SYSTEM. 1828.

Order I. FISSIPEDES. Land birds.—Toes free, and formed for grasping or walking.

Tribe I. TERRESTRES.—Tibial joint feathered.

Sect. 1. *Ambulatores*.—Three toes directed anteally, and fitted for walking or grasping.

1. Nostrils hid under an arched covering. Wings short.

Gallinadæ.—Bill arched from the base. Eggs numerous.

Columbadæ.—Bill swollen at the base, nearly straight, and subulate towards the extremity.

2. Nostrils exposed or hid only by feathers.

Accipitres.—Bill and claws strongly hook'd, limbs strong. Tongue emarginate. Females largest.

Passeres.—Bill nearly straight at the gape. No cere. Males largest.

Sect. 2. *Scansores*.—Two toes directed anteally, and fitted for climbing.

Tribe II. GRALLÆ.—Lower end of the tibial joint and tarsus naked.

Order II. PALMIPEDES. Water birds.—Toes web'd to their extremity, and formed for swimming.

SUPPLEMENT.

HINTS FOR A NEW AND COMPLETE WORK ON GENERAL ORNITHOLOGY.

It has long appeared to us that the greatest desideratum in Ornithology is a work devoted to the whole of the science, and including every particular which has hitherto been observed. It is true that we have Latham's *General History of Birds*, Shaw's *General Zoology*, and Griffith's translation of Cuvier's *Règne Animal*, which are all intended as complete histories of Zoology or Ornithology. But the lamentable deficiency of each and all of these expensive works, must be obvious to all who have had occasion to consult them. In the *General History of Birds*, the system of Linnæus is adopted throughout; the figures are not generally characteristic or well coloured, and the descriptions are meagre. In the *General Zoology* it can hardly be said that any system is adopted. It appears, however, to commence with the Linnæan, and to conclude with that of Vigors! The plates (uncoloured) are almost entirely taken from other works, with extremely little care in the selection; and the descriptions are mostly copied from Latham's works. In Griffith's Cuvier the descriptions are fuller, but cannot certainly lay claim to *originality*, nor always to correctness.

Hence the inefficiency of these works to fulfil the purpose for which they were intended, being fully established, it becomes our business to consider the most expedient means of obtaining a work which might always be consulted with safety and advantage, and which should be within the reach of almost every one. That such would be far from difficult to accomplish, we shall fully prove in the sequel. In the mean time a few general remarks on the subject may perhaps be useful.

We would propose that there should be an Editor, to arrange and superintend the whole work, and that the most eminent Naturalists should be employed in composing the various departments. The Editor must of course fix on the classification he wishes to adopt; and this system must be strictly adhered to throughout. The evils arising from allowing each writer to adopt the classification he thinks best, as in Partington's *Cyclopædia*, must be obvious to every one. If the same system is not adhered to throughout, it would be far better to leave out classification altogether, as such laxity is calculated to confuse the student and impede his progress, rather than to assist him. Thus if one writer informs you that the Golden Eagle belongs to the genus *Falco*, whilst another declares that the same bird is ranked amongst the *Falconidæ*, and in the genus *Aquila*, what assistance can be derived from the systematic portion of that work? Most assuredly none. And there can be little doubt that every sentence relating to classification in such a work would be time and labour thrown away. We would much rather that the Linnæan system should be adopted throughout, as in Latham's last production, than that the system should be altered in the course of publication, to suit the continually advancing state of science. To adopt

the Linnæan system at the present day is, however, manifestly absurd. A single glance over the synoptical table of his system, which we have given at p. 101, will sufficiently establish this proposition, and indeed there are now few, very few, who still consent to follow the *Systema Naturæ* as their guide. This classification has had its day. And a long and serene day it was.—It has served its purposes, and has long since yielded to systems better suited to the present advanced state of science, and more in accordance with the laws of Nature. No one would now think of including the Eagles and Hawks, the Kinglets (*Regulus*) and Wagtails, the Swans and Ducks, &c., in the same genera. Let us not, however, be misunderstood. We are far from wishing to detract from the merits of the Linnæan system, or to undervalue the labours of its immortal author, but merely wish to establish the inefficiency of such a system to answer the purposes of science at the *present* day. A system founded entirely on any one character, as the bill, claws, wings, &c., may have been sufficiently accurate at a time when only about nine-hundred species of the feathered tribes were known; but as Naturalists are now acquainted with about eight times that number, it would be perfectly ridiculous to adhere to such a system. The necessity of attending to the internal as well as to the external structure, and to the habits of each in a state of Nature is now, we believe, almost universally admitted; it has also recently (in 1818) been discovered that all Nature revolves in a circle, and that each species has a double affinity; and it is certain that many points have on this theory been cleared up, which were before considered irreconcilable. That any development of such a theory may, and does *at present*, contain errors, we freely admit; but are we on this account to discard the sys-

tem without further consideration? The reasons why such errors are to be found in the circular system, as hitherto developed, are obvious. In the first place, it is not to be expected that an arrangement so complicated as the Quinary can be brought to perfection at the first trial; and, secondly, its very errors prove to us that it is the natural system. For these errors arise from our not knowing probably one fourth of the species that actually exist, and a natural system cannot be complete if any one link is wanting. In the *Raptores* one family is wanting, and this is without doubt either extinct, or yet remains to be discovered. Whatever any particular development of this system may be, there can, we think, be little doubt that the principles on which it is based, are founded on the laws of Nature, and that can be said of no other classification that has hitherto been promulgated. And if founded on Natural laws, the details, which are of course a minor consideration, will come with time, when we shall have gained a more extensive knowledge of species, and a more accurate acquaintance of the habits of species already known. For these reasons it is that we think it would be expedient to adopt the Quinary System* in a work on general Ornithology. Our next consideration will be the nomenclature of birds, both scientific and vernacular.

One of the advantages of the system of Vigors, is the uniformity which prevails with regard to the terminations of the appellations. Thus the orders end in *ores*, as *Raptores*, *Insessores*, *Rasores*, *Grallatores*, and *Natatores*. (The tribes are an exception to the rule:—four of these terminate in *rostris*, and the fifth in *ores*. This requires revi-

* A complete elucidation of this profound theory will be found in Swainson's *Northern Zoology*, in his volume in Lardner's *Cyclopædia*, and in the *Linneæan Transactions*, Vol. XIV.

sion.) The families end in *dæ*, as *Falconidæ*, *Sylviadæ*, *Charadriadæ*, *Anatidæ*, &c. &c. The subfamilies terminate in *næ*, as *Falconinæ*, *Sylvianæ*, *Anatinæ*, &c. &c. All the appellations of the larger groups should be used in the plural number, as in the above instances, whilst the genera alone can properly be employed in the singular number. The reason of this is sufficiently evident. The larger groups are used in the plural number in order to render them more comprehensive, while *genus*, being the smallest division, must remain in the singular. This beautiful regularity in the terminations of the larger groups is doubtless calculated greatly to lessen the difficulties of the ornithological student; as by a single glance at an appellation with which he is wholly unacquainted, he is thus enabled to ascertain its value. He knows that if it terminates in *ores*, it is an order or tribe; if in *dæ*, a family; in *næ*, a subfamily; and, in any other ending, that it must be a genus. We are however sorry to remark that many modern genera, and chiefly those of Vieillot, frequently have the termination *ina*, which, being the ending of the subfamilies, is calculated to destroy the order and regularity that should pervade the whole of scientific nomenclature. The names of all such genera should certainly be altered. We may also observe, as others have done before us, that species should never be named after persons or countries, or from their abundance in any one locality:—as *Procellaria Bullockii*, *Sitta Europæa*, *Coccothraustes vulgaris*. Those of the first class can only gratify the temporary vanity of the individual after whom the species is named, those of the two last classes are either incorrect at the time they are named, or liable to become so at some future period. We could mention many other kinds of names which should be avoided, but this we conceive to be un-

necessary, as all that we wish to enforce is, that certain rules of nomenclature should be attended to. So far from increasing the difficulties of the science, as some have supposed, such rules are calculated to lessen its abstruseness to a degree which has as yet been little contemplated. Having thus established that it would be expedient to adhere to certain rules of scientific nomenclature, we shall now offer a few remarks on English nomenclature.

In a complete work on Ornithology, it is of course indispensable to treat equally of every department of the science, and to pay equal attention to each. And amongst these, vernacular nomenclature holds, or rather should hold, no undistinguished station. Our observations on this interesting and important subject must necessarily be brief, but we will endeavour to convey some idea of our opinions on this matter. What we wish to insist on with regard to English nomenclature is, 1st, that each genus should have an English name peculiar to itself, and 2d, that the English name of a genus can belong to no other genus, under any combination, as "Field-Wagtail" (*Budytes*), "Water-Wren" (*Salicaria*), "Gold-Finch" (*Carduelis*), &c. Surely it will not be contended that any of the members of *Salicaria* are Wrens! and it scarcely mends the matter to patch up the generic name Water-Wren. For a *Salicaria* never can be a Wren, any more than a *Pyrrhula* is a Finch (*Fringilla*), or a Nightjar a Swallow (*Hirundo*). Nothing is commoner than to find all the *Sylviadæ* designated "Warblers" in ornithological works, while in Latin they are divided into many distinct genera! Surely such flagrant errors as these must greatly increase the difficulties of science. Nor can we admit with Mr. Strickland (see *Analyst*, No. 11), that the English names of birds belong wholly to our mother-tongue,

and that they are as much consecrated by usage as any other part of the English language. Even supposing that no part of the English language was liable to change with time, would it not be perfectly allowable to make a few slight alterations in the vernacular designations of birds, in order to facilitate the progress of the student? And, moreover, we shall find that our Ornithologists are in favor of the change. Stephens, Selby, and Mudie have introduced many new and excellent English generic appellations, several of which have been adopted in a popular periodical—the *Magazine of Natural History*. So that here again Mr. Strickland is mistaken, in supposing that such innovations would never be generally adopted.—So long as Naturalists shall continue to disgrace their works with the unscientific mode of proceeding which we have above reprobated, we may safely predict that the science will not advance in the ratio which might otherwise be expected. As we are now merely throwing together “hints” for the formation of a work on general Ornithology, we shall not here develop this division of our subject further.

Let us now proceed to enquire as to the most expedient method of obtaining adequate popular descriptions of birds. Part of this would come most properly in the introduction, as for instance on the song of birds, on nidification, &c. &c. And we may here remark that the introduction should contain discussions on classification, nomenclature, physiology, incubation, the general habits of birds, migration, moulting, and on every other point appertaining to the science. Directions for the preparations of specimens for a museum, and for the labelling of ornithological collections should also be included. But to return to the popular descriptions. These should be written with a view of including every peculiarity, and every habit which

each species may possess, with philosophical observations on their uses in Nature. Some of Mudie's histories in his *Feathered Tribes* might be taken as fair samples, and also many of those of Wilson and Audubon. As we shall presently lay before our readers a description of some one species in the manner which we should wish to see each treated, further observations on this head are needless. After the popular account, the table of synonyms may be placed, and, finally, the description of feathers. We have no doubt but most of our readers have frequently felt the inconvenience of lighting upon a dry scientific description of feathers, between the delightful details of habits which are to be found in Wilson, Audubon, and Mudie. In the account of the bird which we have extracted, we have, accordingly, placed the details of the feathers after the synonyms. And thus the general reader can skip the latter at pleasure, whilst they are more convenient for the reference of the professed Ornithologist. In popular biographies we should have preferred placing the song, nidification, time of appearance, &c., each under their proper head, and to have marked these heads in *Italic* characters at the beginning of the paragraph; and had the description been our own, we should most assuredly have done so.

The characters of the several groups should be given in precisely the same manner as in Selby's admirable work on British birds.

With regard to the figures of birds, there should be a coloured plate of each; or where the sexes or young differ materially, these also must be figured, and drawn either from Nature, by the most eminent artists, or carefully selected from the works of the best authors. Accurate delineations of the nest and eggs of each species would also be required.

In fine, having thus given a brief and rapid

sketch of what would, in our opinion, form a complete and invaluable work on general Ornithology, we shall conclude the Essay by a specimen of the characters of one order, family, subfamily, and genus, and a description of one species, as a sample of such a work. We might easily have given an original specimen, but we preferred taking the materials from other authors, to prove that by engaging some of the first Ornithologists now living, the accomplishment of such a work would be far from difficult.

The following can, of course, only serve as a sample of characters of groups and descriptions of species, and will therefore give but a small idea of the plan we wish for, but we think it will serve as a fair sample of *one* of the principal portions of the volumes. The size of the work should be octavo, in order to place it within the reach of every one.

“ Order I, RAPTORES, VIGORS.

“ In the natural arrangement, or that founded upon the affinities connecting the various tribes of the feathered race, the Raptorial Order constitutes the first of the five great divisions into which the Class *Aves*, like those of the other departments of the animal kingdom, may be divided: a number, it may be observed, to which not only the primary, but also all the minor subdivisions, of such departments as have hitherto undergone investigation, appear to be limited. Of these divisions, it is one of the two which are considered typical or representative (the Order *Insessores* being the other),

and is composed of the various groups generally known as *Birds of Prey*; answering to the *Accipitres* of Linnæus, and analogous to the Carnivorous Animals of the Class *Mammalia*. The compact yet powerful body, the predatory habits, the decided partiality for animal food, the strong and hooked bill, the muscular limbs, the curved and often semi-retractile claws, and other distinguishing traits, separate the birds of this Order from all the others; though, at the same time we must remark, that modifications of form and character are met with in the less typical members, sufficient to support the necessary connection with the other orders of the class. In this Division four Families only have yet been recognised, viz. the *Vulturidæ*, *Falconidæ*, *Strigidæ*, and *Gypogeranidæ*. Of these the three first mentioned embrace the extensive Linnæan genera *Vultur*, *Falco*, and *Strix*; the fourth is represented by the African Serpent-Eater (*Secretary Vulture* of Latham). The fifth, necessary to complete the series of affinities within the circle of this Order, is still wanting."—SELBY, *Brit. Orn.*

“ Family III, FALCONIDÆ.

“ The *Falconidæ*, which form the second *typical* family of the order, may be considered as embracing all those various ‘*birds of prey*’ that feed in the day time, which are arranged by Linnæus and other systematists under the extensive genus *Falco*. In these, the head (except in the species more immediately connecting them with the *Vulturidæ*) is clothed with feathers; the bill is strong and short, much hooked, and in the typical species bending immediately from the base, which is covered with a naked and coloured cere; the nostrils are lateral,

more or less rounded, and placed in the cere; the legs, which are either naked or feathered to the toes, are of mean length, but muscular and strong, and the tibial joint considerably elongated, to act as a powerful lever in pouncing their prey. Their front toes are partially united at the base, particularly the outer and middle ones; and their claws, which are much incurved, are very sharp, and in general partially retractile. To symmetry of form they unite great strength and activity, and the typical groups possess a power of flight, both as to duration and swiftness, superior to most of the feathered race; their vision is also wonderfully acute, and they are distinguished for courage and audacity. They prey almost entirely upon living creatures, which they either strike upon the wing (the mode adopted by the typical genera) or pounce upon the ground, like the Buzzards and Kites. Birds and quadrupeds are the usual food of most of the species; some, however, prey on fish, and others principally subsist upon the larger coleopterous insects. They tear their prey in pieces with their bill and claws, and parts of the feathers and fur being swallowed with the flesh, are afterwards ejected (together with the bones and other indigestible portions) in pellets by the mouth. They generally lead a wandering and solitary life, except in the season of incubation, or at furthest continue associated in pairs as male and female, which is sometimes observed in birds of the aquiline kind. The members of this family, as might be expected from their typical character, are very numerous, and distributed over every portion of the globe. Many of the species in their progress from the young to the adult state (which in some is not attained before the third, in others the fourth or fifth year), undergo great and remarkable changes. This circumstance, from a want of observation,

and indeed very often of opportunity for close investigation, has given rise to several errors among writers on Ornithology, and has caused great confusion, and a consequent incorrect multiplication, of species. The gradual increase of knowledge, in this, as well as other branches of Zoology, and the labour of several recent Naturalists (among whom stand prominent the names of Temminck and Montagu), have, however, essentially contributed to the development of these singular and unexpected changes of plumage, and cleared up many of the doubts and difficulties, in which the history of several species had been so long involved. By many modern Ornithologists, five subordinate divisions or subfamilies, have been recognised in the *Falconidæ*; viz. *Aquilinæ*, *Accipitrinæ*, *Falconinæ*, *Buteoninæ*, and *Milvinæ*, which again are divisible into groups of still less amount, constituting the genera of the present work, and all forming a circular series of affinities within themselves. Of these Subfamilies, the *Accipitrinæ* and *Falconinæ*, are the typical forms, possessing peculiarities of structure, habits, &c., which either do not exist, or become modified in the others.

“ Subfam. I, AQUILINÆ.

“ The distinguishing characters of this Subfamily, consist in superiority of size, in having the bill longer and straighter at the base than in the typical Falcons, in which respects they approach nearer to the Vulturine Family; the feathers of the crown of the head and neck are narrow and sharp-pointed, and in some subjects the head and throat are found partially naked. Their limbs are generally short and muscular, and their talons very strong and

much hooked. In this subfamily we find the most powerful and destructive birds of the Family, as well as others, which, partaking more of the Vulturine form and disposition, are less predacious, and frequently content themselves with prey already dead, or, in some instances, with carrion. Towards the further extremity other forms are met with, which connect this Subfamily more immediately with the *Accipitrinæ* and others of the Order.

“ Genus AQUILA, BRISS. EAGLE.

“ *Generic Characters*.—Bill strait at the base, strong, much hooked at the point, compressed, with the sides inclining upwards, and forming a narrow ridge or culmen. The tomia or cutting edges of the upper mandibles having a faint obtuse lobe, situated behind the commencement of the hook. Nostrils oval lateral, transversely placed in the cereous part of the bill. Space between the nostrils and eye-orbits thinly covered with radiating hairs. Wings ample; with the fourth and fifth quill-feathers the longest in each wing. Legs having the tarsi thickly clothed with feathers to the toes. Toes rather short, the outer and middle ones united at the base by a membrane. Claws very strong, hooked, and very sharp, grooved beneath; those upon the outer and hind toes the largest.

“The members of this genus are not less distinguished for their size and strength than for those bold and destructive habits, in which they emulate the typical subdivisions of the Family. They do not, however, possess the same facility of pursuing their prey upon wing, which we see in the Falcons and Hawks; for though their flight is very powerful, they are not capable of the rapid evolutions that attend the aerial attacks of the above named

groups; in consequence of which their prey is mostly pounced upon the ground. They attack the larger birds and quadrupeds, and, unless pressed by extremity of hunger, refuse to feed upon carrion, or even any prey already dead. Their form is compact and strong, and their gait and aspect are active and alert, being entirely devoid of the sluggish appearance that characterizes the genera more nearly allied in habits and form to the *Vulturidæ*. The genus possesses an extensive geographical distribution, the species being found in all quarters of the globe. These are mostly the inhabitants of mountainous districts, where they breed amongst inaccessible precipices, and in lofty trees. The young are four or five years in attaining maturity, and during this period, undergo considerable changes of plumage.”—SELBY, *Brit. Orn.*

GOLDEN EAGLE.*

Aquila aurea, WILL.

“On the frontispiece there is a figure of the female Golden Eagle, in the attitude which it assumes when apparently exulting over the prey which it has captured, and in the act of clutching it to death. The figure is about one eighth of the lineal dimensions of nature; and it will give some idea of the attitude, though it is not possible to give the expression on so small a scale, or indeed on any scale. The spirit of an excited Eagle can be felt only by those who are familiar with the birds (such familiarity as man can have with

* The publishers of the *Feath. Tribes* (Whittaker & Co.) having objected to our reprinting an *entire* article from that work, we have been obliged to cancel several paragraphs.—N. W.

Eagles) in their native haunts; and even then it must be imagined, for it cannot be accurately seen, or satisfactorily described. It is very difficult indeed to obtain even a tolerable portrait of one of these birds; for in order to get the Eagle in perfection into an aviary, we would require to bring the mountain crag and the mountain glen along with her. The bird lives, no doubt, for it is a bird not easily killed, but its plumage is dull and its spirit more so. The rich browns in their peculiar metallic lustre, and the 'pointed feathers on the neck, shaded off till they arrive at the rich orange at the points, and stand up when the bird is excited, as if they were so many scales margined with gold, are not to be obtained, unless where the bird has the free and unrestrained range of all its powers,—can climb the pure air till it touch on the region of perpetual frost, and there dash along over a wide extent of country. Their feathers are tinted and tempered in the fury of the blast; and they acquire not their full depth and lustre till they have borne that for four successive winters; and so it would be vain to hope that we could either obtain or preserve them in confinement.

“The bird with which the Golden Eagle has sometimes been confounded is the White-tailed, or Sea Eagle, which is of much more frequent occurrence; and, though the brown is not nearly so rich, or the points of the neck feathers so well made out, and the bird seems altogether of a laxer and looser make when they are seen together, yet the general colours are so much alike, especially when the Golden Eagle is young and has white in the tail, that, to casual observation, the one may pass for the other. But upon comparison, the looser form of the head, the pale beak, the naked tarsi, and a comparative want of firmness and decision in all the feathers, and of compactness in the body,

show at once that the bird, however large it may be, is not the Golden Eagle. On the other hand, while the Golden Eagle is in the young plumage and the feathers of the tail are partly white, forming what has been called the 'Ring-tail,' the bill, the down on the tarsi, and the deep brown bar on the end of the tail, together with the whole air of the bird, point out at once that it is the Golden Eagle. Give it but its form and expression, and no matter though the colour white, black, or even green, the Golden Eagle would never be mistaken for any other bird, any more than a friend, of whose person, air, and gait, we had a complete knowledge, would be lost to our recollection, or changed to another person by merely putting on a dress of a different colour.

"The Golden Eagle is now rare in England, if indeed it be found there at all; and even in the Highlands of Scotland it is by no means common, and its eyrie at least is confined to the most wild and inaccessible places of the mountains, and only in those places that are cliffy and precipitous. I have seen Eagles beating about in the higher glens of the rivers that rise on the south-east side of the Grampians. I know that one pair, at least, nestle somewhere in the high cliff called Wallace's Craig, on the north side of Lochlee, and another somewhere in Craig Muskeldie, on the south side of the same. I have observed the four all in the sky at one time; and I for some time wrote with a quill which dropt from one of their wings in the autumn of 1819. An intelligent farmer who had resided all his days on the spot, assured me that the Wallace Craig Eagles had been known in the days of his grandfather, (the people there are rather famed for longevity, though the sun does not shine on the lake for several weeks at mid-winter), but those on the south side were not such old settlers, and they

were conjectured to be descendants of the former, although driven off by their parents according to the general habits of the birds. I have seen them in Strathspey, and Badenoch, in Stratherrick, and in the moor between Kiltarlity and Strathglass; and I once saw one over Culloden moor, not far from the scene of the battle, though some of the land in the intermediate neighbourhood was under crop. Indeed, when the weather is very clear, and the Eagles fly high, they continue their course in perfect indifference to anything that may be happening on the ground; and I have been *told*, though I do not vouch for the fact, that they sometimes stoop down and carry off hens and even cats from the very doors of the cottages. I found, however, that Eagles had been a sort of 'lions' with wandering tourists, and that any number of stories of their achievements might be had cheap. I never saw the Golden Eagle near the west coast, or in the islands (though that is no proof of its not being there), but I have seen the Sea Eagle and the Osprey.

"The eyrie of those magnificent birds, which is a dwelling as well as a cradle for their broods, is placed on some ledge of the rock, and rarely on a tree, unless where the tangled roots spring from the cliff, and offer a broad space which can be covered with sticks. The place is generally slippery with the refuse of their prey; and when the young are there, it is usually well stored with provisions, which consist indiscriminately of quadrupeds and birds. The eggs are seldom more than two, though some say that there are occasionally three, and that in such broods there are two females, one of which becomes an 'odd Eagle' and lives solitary, growing to a very large size, being very ferocious, and drop-

ping addled eggs occasionally on the mountain tops ; but the tale wants verification.

“The Eagle generally strikes her prey upon the ground, and the stoop is almost instantly fatal to any animal on which she pounces. The mere fall of a body of twelve or even eighteen pounds in weight, from an elevation of 1500 or 2000 feet, would be powerful ; but the Eagle shoots down with a great initial velocity, and as she delivers the whole of her momentum with the claws, she not only dashes the animal to the earth, but plunges the claw into its body up to the toe, dislocating the spine or breaking the skull of the feebler quadrupeds, such as hares, and the death of Red Grouse and Black Grouse, which form a very large portion of the prey, is instantaneous. The view upon which the Eagle proceeds must be a steady one, for on the ground she seldom misses her pounce, though she often does when she attempts to hawk on the wing, as her broad wings and forward rush are both unfavorable to turning so as to follow the motions of the bird. If the prey is small, she has the power of slackening her speed as she descends, so as to temper the ultimate effect to the necessity there is for it, otherwise, strong as she is, she might be injured by the collision with the ground. An unrestrained stoop from her greatest height would be sufficient to dash even an Eagle to pieces. If the pounce is not fatal, the clutch instantly follows, in the giving of which the whole weight of the bird—in the utmost excitement, with the head elevated, the neck stiff, the feathers of the head and neck erected, and the wings shivering so as to keep the pressure on the instruments of death—is upon the claws. With small animals, even when they show signs of life after the pounce, the clutch is given with one foot only, and the bird is less excited;

but in no case is the prey touched with the beak or even looked at until all motion in it has ceased. When the eye has guided the descent, and the talons have taken effect, the office of the eye is at an end, and the work of death is committed to instruments admirably fitted for carrying it into effect. In general the prey is borne off, but in some cases it is devoured on the spot, that taking place of course at those times when the bird has only herself to provide for.

“ In winter when her pastures are covered with feet or even with fathoms of snow, the Eagle is often for weeks together without food. That may be one of the causes (for all phenomena, whether of birds or of anything else, have causes) why she drives the young not only from the eyrie but from her haunt generally before the intensity of winter sets in; and it is said that she drives them lower down the country, where the chances of food are more numerous.

“ Thus the instinct which we are apt to regard as an unkind one, is the very best adapted for the preservation of all; and the Eagle is, in her way, just as tender a mother as any other animal. As it is necessary for her brood to grow fast and get strong before the inclement season sets in, she is most indefatigable and most successful in supplying them with food, and equally daring in the defence of them against any intruders, that may have the temerity to invade an Eagle's nest; and when they are so far matured that they can kill prey for themselves, she drives them down where prey is more easily obtained, while she herself remains to brave the winter at the very throne of its dominion. Herein we may see a beautiful instance of that balance of reaction which can be traced through all the works and operations of Nature. Populating and cultivating narrow the bounds and di-

minish the number of Eagles ; but as there is a constant tendency in the Eagles to spread and extend their territory and their numbers, that tendency instantly acts upon the withdrawal of the restraint ; so that when the Eagle becomes necessary in order to maintain the balances of races, and the perfection of the whole of Nature, she returns by as unerring a law of Nature as that which guides her to her prey.

“ Her strength of endurance also enables her to keep her footing and preserve her existence, under circumstances to which the powers and the life of almost any other animal would be obliged to yield. The same elastic ligament, which, of its own nature, and without effort from the bird, compresses her toes in clutching, enables her to cling to the pinnacle of the rock, and to cling the more firmly the ruder the blast. The claws are not used in those cases, as that would injure their points and unfit them for their proper functions ; but the pads and tubercles hold on upon places where the foot of all else would give way ; and the Eagle sits with closed wings and close plumage, as if part of the rock itself, while the wind roars and the snow drives, tearing the bushes from their roots, sending them rolling over the precipices, and literally scourging the wilderness with ruin. The strength of the hill ox, the fleetness of the mountain deer, and the resources of the mountain traveller, are often unavailing ; and when the storm breaks, the signal of the Raven and the Carrion Crow points out the place of their bones ; but the bones of the Eagle are not thus given by nature to be tugged at by ignoble birds. Queen of the tempest, she rides as secure amid its fury, as when, on a cloudless and breezeless day, she floats down the valley with easy and almost motionless wing.

"Her endurance of hunger is as remarkable as her power in the storm. In confinement she is said to have lived five weeks without food; and yet as she was then taken with dead bait, to which she does not resort except in extremity, she must have been hungry when taken: so that, in her native freedom and with the cold dry wind around her, which diminishes the waste of the animal system, she may possibly be able to fast for a longer period;—and the one mentioned was killed and did not die of hunger. But I must leave her to her haunts, apologizing to the reader, that I am obliged to confine my notice to a few desultory pages, which is as much out of nature as cooping up the living bird in a cage. In Nature, the Eagle requires a mountain, and if ever it be my good fortune to afford her a volume of description, she *shall* spread her wings."—MUDIE, *Feath. Tribes*.

Synonyms of Young.—Chrysaëtos cauda annulo albo cincta, RAY, *Syn*.—Falco fulvus, LINN. *Syst*.—GMEL. *Linn*.—LATH. *Ind. Orn*.—Falco niger, GMEL. *Linn*.—Aquila fulva, MEY. *Vög. Liv. und Esthl*.—Aigle commun, BUFF, *Pl. Enl*.—Black Eagle, PENN. *Brit. Zool*.—Ringtail Eagle, PENN. *Br. Zool*.—WILL. *Orn*.—LATH. *Syn*.—ID. *Supp*.—BEW. *Hist. Br. Birds*.—LOW, *Fauna Orcad*.—SHAW, *Gen. Zool*.—WILS. *Amer. Orn*.—ID. *Ed. Jardine*.

Synonyms of Adult.—Aquila aurea, WILL. *Orn*.—*Analyst*, No. 11.—*Mag. Nat. Hist.*, No. 50.—Falso chrysaëtos, LINN. *Syst*.—GMEL. *Linn*.—*Faun. Suec*.—LATH. *Ind. Orn*.—MÜLLER, No. 59.—BRISS. *Orn*.—Aquila chrysaëta, SHAW, *Gen. Zool*.—FLEM. *Brit. Anim*.—SWAINS. *Northern Zool*.—Gold Adler, BECHST. *Naturg. Deut*.—Aigle Royal, BUFF. *Pl. Enl*.—ID. Grand Aigle.—Aigle Royal, et Aigle Commun, CUV. *Règne Anim*.

—Aigle Royal, TEMM. *Man. d'Orn.*—Golden Eagle, WILL. *Orn.*—PENN. *Br. Zool.*—ID. *Arct. Zool.*—LATH. *Syn.*—LEW. *Birds of Brit.*—BEW. *Hist. Br. Birds.*—SHAW, *Gen. Zool.*—MONT. *Orn. Dict.*—FLEM. *Br. Anim.*—SELBY, *Illustr. Br. Orn.*—*Orn. Dict.* 2d edit.—MUDIE, *Feathered Tribes.*—AUDUBON, *Orn. Biog.*

“*General Description ; Adult Female.*—Bill bluish at the base, the tip black. Cere lemon-yellow. Irides orange-brown. Primary quills black; the secondary ones clouded with hair-brown, broccoli-brown, and umber-brown. Crown of the head, and nape of the neck, pale orange-brown, the feathers occasionally margined with white, narrow, elongated and distinct. Chin and throat, dark umber-brown. Vent pale reddish-brown. Tail pale broccoli-brown, barred with blackish-brown, and ending in a broad band of the same colour. Tarsi clothed with pale reddish-brown feathers. Toes naked, yellow. Claws black, very strong, and much hooked.

“*Young.*—Bill having the base bluish grey, and the rest black. Cere lemon-yellow. Irides clear dark chesnut brown. Forehead dark chesnut brown. Crown of the head, and nape of the neck, yellowish-brown, inclining to pale orange-brown; the feathers narrow, distinct, and pointed. Throat and under part of the neck dark umber-brown. Breast and belly dark brown, with a few white feathers intermixed. Inside of the thighs *white*. Vent and under tail-coverts white, having some of the feathers tipped with brown. Back and wing coverts very intense umber-brown. Upper tail coverts white, some of them being tipped with brown. Tail, for two-thirds of its length, white; the remainder (or end part) blackish-brown. Greater quills very intense brown, or blackish brown, hav-

ing their bases white. Secondaries, for two-thirds of their length from the base, white. Tarsus clothed with white feathers. Toes lemon-yellow. Claws black."—SELBY, *Illustr. Br. Orn.*

ON THE
ESTABLISHMENT OF A NEW MAGAZINE
OF
NATURAL HISTORY.

It is with no small pleasure that we inform our readers that in all probability a magazine devoted to Natural History will shortly be commenced. It must be obvious to every one that such has long been a desideratum in the English language. For although we have Loudon's *Magazine of Natural History*, and the *Zoological Journal*,* yet neither of these are sufficiently comprehensive to suit the present state of the science:—the one treating entirely of habits, and the other as exclusively of classification, nomenclature, &c. Now we should wish in the forthcoming periodical to see every department of the science equally attended to, as there can be no doubt but that this is essential to the progress of Natural History.

It is certainly a great disgrace to Britain that only two periodicals on this interesting and useful study are in existence in the whole kingdom, when our continental brethren possess so many. We look forward to the time when Britain shall be able to boast of one or more periodicals devoted to

* This work has since been discontinued.

each department, but we fear that such would at present scarcely answer. We therefore hail with delight the appearance of a new magazine devoted to the whole of Zoology, and heartily wish that it may succeed, and that the lovers of Nature will not suffer it to languish and perish.

The periodical is, we understand, to be entitled the "*Naturalist's Miscellany*." It will be devoted chiefly to Mammalogy, Ornithology, Entomology, Ichthyology, Erpetology and Conchology, but the Editor informs us that communications relating to other departments of the science will also be acceptable. It is shortly to commence, and will be continued monthly, at a moderate price.

In this journal, we are further informed that classification and habits of animals will be equally attended to. We should moreover wish to see complete histories of species wherever this is practicable: the synonyms should also be added. We are, however, by no means desirous of discarding the short communications, as these are far from being the least interesting and useful feature of a magazine of Natural History.

It is also to be hoped that the *Naturalist's Miscellany* will present far more satisfactory reviews of new works than Loudon is accustomed to give. Such reviews as appear in the *Magazine of Natural History* are certainly worse than nothing, and would be far better omitted, with the exception, however, of those occasionally furnished by correspondents.

We think that if all the readers of Loudon's magazine—which is excellent as far it goes—would also become subscribers to the *Naturalist's Miscellany*, the success of the periodical would be certain, and we should thus ensure to ourselves what has certainly long been a desideratum in Britain. It is well known to most of our readers that Lou-

don is quite overstocked with communications, and that two or three years frequently elapse before they can be inserted. If therefore some of the correspondents of the *Magazine of Natural History* would lend their services to the *Naturalist's Miscellany*, they would be advancing the interests of the science, while they obtained an early insertion for their valuable contributions.—If, in fine, this periodical is well conducted, and above all well supported by its subscribers, it will certainly do more for the advancement of the science, than any magazine which has yet appeared in the English language.

ART. III. ADDITIONAL NOTICES OF BOOKS.

Ornithologia Nova: or a new General History of Birds, extracted from the best authorities in various languages, both antient and modern, 2 vols. 12mo. Birmingham, printed by T. Warren. 1743.

We never saw this production, nor had we so much as heard of it, until we were supplied with the following account of it, by Edwin Lees, Esq.,* M.E.S., Honorary Curator of the Worcestershire Natural History Society, in a letter dated Dec. 27, 1835:—

“No author’s name is appended to the *Ornithologia Nova*, though reference is continually made to Willughby, Ray, Derham, Sibbald, Johnson, and others, and copious extracts are given from works of travels. It is, however, chiefly remarkable for ‘four hundred figures’—woodcuts—apparently made for the occasion, and, though the majority are execrable, a few are really spirited and characteristic. In *execution* they will of course bear no comparison with any *cut* of the present day. Amidst a good deal of rubbish and

* To the kind attention of Mr. Lees, we are likewise indebted for a copy of the “Proceedings at the Second Anniversary Festival of the Worcestershire Nat. Hist. Soc., with the address of the Council, delivered by Chas. Hastings, M.D., the speech of the Right Hon. Lord Lyttelton; report of the speeches at the dinner, names of the officers and council, list of donations, &c.”—N. W.

absurdity, there are occasionally good remarks, and particular attention appears to be paid to *British* birds, with observations, which, had they received the attention they deserved, need not have protracted the discussion as to the migration of the Swallow for so many years after 1743, as the author, from *personal observation*, details the migration of these birds from the eastern coast of England at considerable length."

Journal of a Voyage to New South Wales. By Jas. White. 4to. 1790.

This work, which had previously escaped our researches, contains much that is useful and interesting regarding the Ornithology of the region of which it treats. Amongst sixty-five plates, a large proportion are figures of birds, and these, with due allowances for the time at which the book appeared, are accurately delineated, and faithfully colored, and exhibit much life and spirit. From a cursory view of Mr. White's *Journal*, at the house of a friend in the neighbourhood, we can pronounce that the volume deserves to be far better known to Naturalists, than it appears to be at present.

Index to the General History of Birds. By John Latham, M.D., F.R.S., A.S., and L.S. Winchester, 1828. 4to.

Since the preceding sheets passed through the press, our venerable and amiable friend the celebrated Dr. LATHAM, has kindly presented us with a copy of the above work, which is intended as a complete and copious index to his great work, the *General History of Birds*. The index to each

volume is printed separately, and may be bound up at the end of the volumes to which they respectively refer. Every one who possesses the *General History*, should likewise procure the *Index* to it.—All the names, Latin, English, German, and French, and frequently also the Indian, are inserted, and, had the names, employed by the illustrious author, been in a different type from the others, the volume would have been extremely useful even to those who do *not* possess the *General History of Birds*.

Manual of the Ornithology of the United States, and Canada. By Thomas Nuttall, F.L.S. Vol. I, 1832. Vol. II, 1834. 12mo. £2. 2s.

This is indeed a valuable *Manual*, the descriptions being so surprisingly minute, accurate, and well-written, as scarcely to be inferior to those of Wilson. The wood-cuts are likewise spirited and well executed, and Nuttall must ever rank high among the Ornithologists of the present age. Every one interested in American birds, should possess this work. Hitherto Europe has produced no such field observers as the American trio, WILSON, AUDUBON, and NUTTALL.

Tales of Animals; comprising Quadrupeds, Birds, Fishes, Reptiles, and Insects. By Peter Parley. Third edition. London, Tegg and Son. 1834. 12mo. 5s.

Peter Parley's *Tales of Animals* have long been familiar to us, but somehow we managed to omit all notice of it in the previous part of this volume. To say the truth, indeed, it has no claims on the

attention of the Ornithologist, though it may perhaps be perused with interest by the general reader. The woodcuts—which are very numerous—are not original, but are well selected, and the accounts of birds consist either of some of their principal habits, or of such anecdotes as the author has been able to collect. On the whole it forms an instructive book for the young.

Familiar History of Birds. By the Rev. Edward Stanley, M.A., F.L.S. 7s. 2 vols. 12mo. London, 1835.

“The attractive and familiar guise in which scientific knowledge can be dressed, is most strikingly exemplified in this *Familiar History of Birds*, published ‘under the direction of the Committee of General Literature & Education appointed by the Society for Promoting Christian Knowledge.’ It is one of the most instructive and at the same time interesting books on Natural History that has come under our notice. Those who read it will hardly help becoming Ornithologists,* if they reside in the country. Young and old will learn from it how to glean knowledge that is constantly before their eyes in their every-day path, and to understand and apply it by the aid of science.

“It is an anecdotal account of the formation, habits, and instincts of birds; in which knowledge and entertainment are so intimately and felicitously blended, that the stories told derive fresh interest from the scientific facts that they illustrate. No better book could be put into the hands of young

* That is, they will be put in the way of becoming Ornithologists.—N. W.

folks: it will open to them a new and never-failing source of amusement. The little girl, who is now content to watch the Robin [Redbreast] picking up crumbs at the window, and the schoolboy, whose only aim it is to carry off a nest as a trophy, will by means of this book be led to trace the instinct of self-preservation, in the commonest acts of the feathered tribes, and the wonderful adaptation of their structure to the most minute circumstance of the habits and locality peculiar to each class.

“The two little volumes are illustrated with numerous wood-cuts, very bold and distinct. The only defect in them is the common one of the surrounding landscape being on too small a scale for the animals; so that a hare looks of the size of a roebuck, and a [Grey] Cuckoo is as big as the trunk of the oak on which he is perched.”—*Speculator*.

We have likewise heard good report of Mr. Stanley's *Familiar History of Birds* from other quarters, and especially from our able ornithological correspondent, J. D. Weston, Esq., Surgeon, of Chester.—Since writing the above, we have seen these volumes, and can recommend them as forming a cheap and excellent elementary work on birds.

Manuel d'Ornithologie, ou Tableau Systématique des Oiseaux qui se trouvent en Europe. Par C. J. Temminck. Partie III. Paris, 1835. 8vo. 7fr.

This is a continuation of the work noticed at p. 28, and contains all the new species discovered in Europe since the publication of the second edition of the previous volumes. Additional synonyms are likewise added to the species included in

the two first volumes. We are glad to find Gould's *Birds of Europe* frequently referred to with high commendation. The third volume of the *Manuel d'Ornithologie* appeared in the spring of last year, and even since that time, several new European species have been characterised by our own zealous and indefatigable Ornithologist, Gould. The present volume treats of land birds, and we understand that a fourth and last, including the water birds, is in preparation. The "Tardigrade Dutchman" has made surprisingly few alterations in system since his last appearance before the public, his third volume being, in this particular, on a footing with the first edition of Selby's *Illustrations*, published in 1825. After what we have said of the previous volumes of the *Manuel d'Ornithologie*, we consider it needless to enforce on our readers the necessity of procuring the third volume.

Manual of British Vertebrate Animals : by the Rev. Leonard Jenyns, M.A., F.L.S., Z.S., E.S., &c. Smith, Deighton, Stevenson, Cambridge; Longman and Co., London. 1835. 8vo. 13s. pp. 559.

Jenyns's long promised, long looked-for *Manual* has at length appeared, and now that we at last have it safe on our table, we think it every-way satisfies the high expectations which we had, naturally enough, formed of it, from the well-known talents of its Reverend author. Dr. Fleming's *British Animals*, the only English work the student before possessed, as a guide to the whole animal kingdom of Britain, bears no comparison with the work now before us, and indeed it sinks into insignificance before the luminous *Manual* under consideration. Fleming's work, never of much use,

may now be entirely abandoned, and suffered to moulder on the shelf of the proprietor, while Mr. Jenyns's *Manual* will, if we mistake not, reap a plentiful harvest from the enlightened Naturalists of Britain.

We would fain notice the *whole* of this tempting book, but this our plan forbids, and we are compelled to restrict our readers to a bill of fare consisting entirely of *fowl*. Ornithology occupies a considerable—though not an undue—portion of the volume, and the same taste, order and accuracy reign here as in the other zoological classes. Our author informs us that he is strongly inclined to quinary principles, but we are sorry to find that he has not adopted the masterly theory of Macleay, as developed by his zealous and talented disciples. Perhaps, however, his reason for this is, that he could not have carried the system throughout, on account of some of the minor classes not having been investigated with sufficient precision, in their quinary relations. Mr. Jenyns has, accordingly, rather chosen to be directed by his own reason, than to being servilely guided by any previous authority, however great. The system, though not the natural one, is ably drawn up. Descriptions of the plumage and general habits of every British bird, and a few of the principal synonyms, judiciously selected, constitute the letterpress, which, we rejoice to say, is original wherever originality has been possible, and, in other cases, authorities which can be depended on, are alone resorted to. The volumes most frequently referred to, are those of Montagu, Temminck, Selby, Bewick, Gould, and a few other worthies, whose names the Ornithologist delights to pronounce.

With regard to the style in which the work is "got up," we need only observe that we should never desire to see better paper or more beautiful

printing; and we will now conclude, by recommending Jenyns's *Manual of British Vertebrate Animals* to the attention of all our readers. A very competent knowledge of British Ornithology may be gleaned by a proper use of this book, and, with the exception of Selby's *Illustrations*, we do not know a better book for the beginner.

Ornithological Biography. By John James Audubon, F.R.S. Vol. III. Large 8vo. pp. 638. 1836. 25s.

Since we penned the notice of the previous volumes of this delightful and accurate work, a third volume, nowise inferior to its predecessors, has reached us. Its plan is the same, and therefore we need only refer to our critique of the two first volumes, for our opinion of the whole work. The *Ornithological Biography* is as indispensable to the philosophic Ornithologist as the *American Ornithology* of Wilson; The Article CANADA GOOSE may be pointed out as being peculiarly excellent.

Feathered Tribes of the British Islands. By Robert Mudie. 2nd. edition. 2 vols. post 8vo. 1836. 28s.

After what we have said of this work at p. 63, we consider it needless to renew our commendation in this place, except that we would advise every one to procure a copy of it. The specimens of printing in colors are greatly improved.

Descriptions of the Rapacious Birds of Great

Britain. By Wm. Macgillivray, A.M. Edinb. and London. 1836. 12mo. pp. 482. 9s.

We conceive that the title of this work and the name of its author, will be sufficient recommendation of it. Suffice it to say, that the descriptions are minute, accurate, and in the author's best style; the plates are likewise excellent, and the book is well got up. We have skimmed the whole of this delightful volume, and can conscientiously recommend it to our readers. We much like the plan of giving monographs of families of birds, and hope that the present volume will be followed by others on the same plan. Our own *British Songsters* will probably be on a similar plan.

British Songsters; being Popular Descriptions of the British Choristers of the Groves. By Neville Wood, Esq. Fcp. 8vo. J. W. Parker, West Strand, London.

We have in preparation for the press a work of the above title, for a specimen of which we have extracted the entire article "Ivy Wren," at the request of our scientific friend, Dr. Liverpool, in Art. IV. of the supplement. In our *Text-book* we have already noticed two or three works on song birds, by Bolton, Bechstein, and Syme; but none of these volumes in any way come to our notion of a treatise on song birds, the authors of the above works being mere book Naturalists or amateurs, and their respective publications, accordingly, either *compilations*—what an odious word!—or instructions for the preservation of birds in confinement. In our *British Songsters*, such defects will be avoided, and we shall aim, as far as possible, at giving descriptions of the habits, haunts, nidification, and general economy of the feathered choris-

ters. With regard to the commoner birds, the biographies will be entirely original, and sometimes, we hope, new, but in the case of very rare visitants or stragglers, we prefer extracting the account of some standard author, verbatim, to botching and pasting up an *apparently* original description of our own. Thus far, compilation is allowable, in order to fill up gaps in a work which would otherwise be incomplete, but to detail all the commonest circumstances in the words of other authors, is unpardonable. "Professor *Nudirostris*" (we will not say who has employed this epithet before us), with a host of House Sparrow's nests on his table, and "under his nose", must needs repair to his *very extensive library*, and, having pored over all the ornithological volumes—both old and new—in his collection, selects the accounts of two or three authors (perhaps by a lucky chance one of the descriptions is correct!), cuts them out with his very efficient pair of scissors, and *pastes* them on his own conglomerate, with all the despatch of a compiler long inured in his art! This is the kind of thing we despise and condemn, but *occasional* and *judicious* compilation is frequently not only useful, but necessary.

We cannot inform our readers when this work will appear, but it will be carried on with as little delay as possible, and will probably form a foolscap octavo volume. If we can get it illustrated with original figures, it will be an advantage. In conclusion, we need only observe, that any communications on the British song birds, either facts or anecdotes, and however apparently trivial, will be gratefully accepted, and duly and immediately acknowledged. Such favors will be printed at the end of each description. Valuable communications have already been received, from Chas. Liverpool, Esq., M.D., Mr. Edward Blyth,

Henry Barlow, Esq., J. D. Weston, Esq., Surgeon, and many others.

History of the Rarer British Birds. Intended as a Supplement to Bewick's "History of British Birds." By T. C. Eyton, Esq. Longman and Co. London. Part I, Jan. 1836. Demy 8vo, 3s. 6d. Royal 8vo, 7s.

In the present work, all the new species not figured by Bewick, are included. The plan of the work appears to be excellent, and the whole is well "got up," but surely the author cannot have met with the last edition of Bewick's *British Birds*, published in 1832. If he will take the trouble of referring to that edition, he will there find cuts of the Alpine Abern (*Neophron leucocephalus*) and Bluethroated Fantail (*Pandicilla suecica*, Blyth). But though this is obviously a needless repetition, we are little disposed to quarrel with the author on that account, and will now proceed to investigate the merits of the figures and letterpress in succession.

The number opens with a representation of the Alpine Abern. which appears to us, as far as we can judge from the stuffed specimens we have seen, to be characteristic. The vignette at the close of the description consists of the head of this bird, executed in a masterly style, and with scrupulous ornithological nicety. The second figure (the Redlegged Falcon) is a beautiful cut; and the third (the Tithys Redstart) pleases us as well as any in the number. Of the Bluethroated Fantail we cannot speak so favourably, though there is much *finish*, both about the bird and the surrounding herbage. And, moreover, who ever saw a bird straining its head round towards the right side, in

order to seize an insect on its left side?—The Alpine Annet (*Curruca Alpinas*) is an excellent figure. We have lately learned from our esteemed friend, Dr. Latham, that he possesses a stuffed specimen of this bird, but he is not quite certain as to its being a British-killed individual.—The Firecrested Kinglet (*Regulus ignicapillus*) is a complete failure, and it surprises us that our author should have allowed the cut to appear. The Shore Lark (*Alauda Alpestris*), however, is a good figure.—Passing over the Whitebellied Swift, we find a lovely representation of the Mealy Linnet (*Linaria canescens*). Mr. Blyth informs us that he now possesses a live specimen of this species, and Mr. Doubleday has had two of them in confinement above a year. We have little doubt but the Mealy Linnet is perfectly distinct from the Redpoll Linnet. The Whitewinged Crossbill (*Crucirostra leucoptera*) is a spirited, and we think, an accurate figure. A single individual, shot in 1802, near Belfast, and recorded in the *Linnæan Transactions*, is the sole authority for including this species in the British Fauna. Mr. Eyton's woodcut "is taken from a specimen in the collection of William Yarrell, Esq., of a male bird in the plumage of the second year." The next species is the *Coccyzus Americanus*, of which we have seen a specimen in the British Museum. Of the Rock Ptarmigan no representation is given. The cut of the Wood Pigeon is not so characteristic as we could have desired, nor do we much admire that of the Migratory Pigeon. With regard to the remaining species, a bare enumeration must suffice.

The number closes with cuts of the Black Stork (*Ciconia nigra*), Brown Longbeak (*Macroramphus griseus*), Buffbreasted Dunlin (*Tringa rufescens*), Pectoral Dunlin (*Tringa pectoralis*), and

Temminck's Dunlin (*Tringa Temminckii*), all of which are well executed.

The vignettes are in a very finished style, but have none of the character and spirit of those of Bewick. The nomenclature also is extremely faulty, and, under the cut of the Bluethroated Fantail, we actually find "*Ficedula Suecica*, LINNÆUS"! Such defects, however, can scarcely be said to detract from the value of a work of this kind, and we cordially recommend the publication to the notice of our readers. Two more monthly numbers, forming one octavo volume, will complete the work.

The Analyst; a Quarterly Journal of Science, Literature, Natural History, and the Fine Arts. Vol. III. London: Simpkin and Marshall; Curry, Jun. & Co., Dublin; Barlow, Birmingham. 1836. 8vo. Bds. 9s.

Since we noticed the two first volumes of this valuable Magazine, a decided improvement has taken place, both as regards the papers, and the manner in which the work is "got up." It has now fixed its head quarters in Birmingham, is published quarterly, has acquired a far loftier and more definite character than it formerly possessed, and, from the extreme merit of its literary and scientific papers, surpasses all of its Metropolitan cotemporaries. It has equal charms for the man of science and the general reader, but the ornithological portion alone will claim our attention on the present occasion.

At p. 26, is an article entitled "Remarks Conducive to the Improvement of Ornithological Nomenclature", consisting of a list of British land birds (orders *Raptores*, *Insessores* and *Rasores*),

hedged in on either side with excellent practical observations on this hitherto neglected subject. As a corrected reprint of this list appeared in a subsequent part of the volume, we defer making particular mention of this paper for the present. Passing over a host of highly interesting and valuable scientific and literary articles, as not bearing on our immediate purpose, we arrive at "A Retrospect of the Literature of British Ornithology", anonymous, but written, we happen to know, by a learned and talented Physician, with whom we have the honor of corresponding. The article consists of slight notices of works on Ornithology, and especially British Ornithology, commencing, as we have likewise done, in our *Ornithologist's Text-book*, with the valuable production of Willughby. The writer has made an interesting chapter of it, though not a very complete catalogue, and, with all our respect and esteem for the highly-gifted author, we find it our duty to observe, that truth and justice has occasionally been sacrificed to effect, as, for instance, in the notice of Morris's *Guide*, at p. 99. Now, in our opinion, it was wholly unnecessary to make any mention of this little affair, "blind", or not blind; and we are convinced that the writer would *not* have noticed the pamphlet, had it not afforded him scope for concluding with an effective paragraph. To this we decidedly object, but candour compels us to admit, that such instances are of rare occurrence in this Retrospect.

At p. 197, the list of British birds, before alluded to, is corrected and completed, in an article headed, "The Birds of Britain, Systematically Arranged." As in the former list, so also in the one now offered to our notice, the catalogue is, very properly, fenced in with *principles*, on which the Fauna is founded. The English nomenclature is almost unexception-

able, and the classification differs little from that adopted by Vigors, Selby, and other quinary systematists. We object, however, to changing the generic name *Yunx* to *Torquilla*, *Phœnicura* to *Ruticilla*, and other unnecessary and uncalled for alterations of a like nature. We are well aware that these names, now again introduced by this writer, are not new, but, on the contrary, have the advantage of priority; yet we do not clearly perceive the end that is attained by changing names now established by long usage, and which, moreover, are intrinsically unexceptionable. What offence also, we would ask, has the letter *y* committed, that it should scarce find a place in this list? and why is it preferable to write *Pyrrhula*, *Budytes*, *Bombycilla*, *Colymbus*, *Ortyx*, &c., "*Pirrula*", "*Budites*", "*Bombicilla*", "*Colimbus*", "*Ortix*"? What do we gain by spelling Cuckoo "*Cucoo*" or "*Cuccoo*", or Quail "*Cwail*"?—For the rest, we have not a word to say against this arrangement, and feel peculiar gratification in recommending it to the close attention of our readers, as the most complete list of British birds hitherto published, and the only one which can be considered in any way a guide to English nomenclature. For further remarks on ornithological nomenclature, see our paper on this subject, read before the Worcestershire Natural History Society, and printed in Art. V of our Supplement.

The next ornithological essay consists of "*Sketches of European Ornithology*", which appears to be an analysis of Part I of Gould's magnificent work, the *Birds of Europe*. In the paper before us, the generic and specific character, synonyms, and principal habits of the birds figured in the first part of Gould's work, are given, with reference to the volumes of Werner, Selby, Meyer, and other modern standard Ornithologists. To those who

are unable to obtain the *Birds of Europe*, this analysis will be invaluable, and we are informed that the subject will be continued in the subsequent numbers of the *Analyst*. The sketch is by an eminent scientific individual, and is ably drawn up.

At p. 288, is a reply to the "Ornithological Query", in *Analyst*, Vol. II, p. 426. With regard to the first bird, we think the correspondent is mistaken, in supposing it to be the Red Lark; because we believe that the bird mentioned under this name by Latham, Montagu, Fleming, and others, is merely a variety of the Sky Lark (*Alauda arvensis*), and that the true Red Lark (*A. Pennsylvanica*) has not been met with in Britain, being an exclusively Transatlantic species. Until "Querist" presents us with a more minute and detailed account of his first bird, any conjecture as to its species is useless. The second bird is, most probably, the Spring Oatear (*Budytes verna*). The only circumstance we cannot reconcile, is its having been observed amongst dwarf fruit trees in the nurseries near London; every other particular coincides perfectly with the habits we have observed in the Spring Oatear.

On the next page is a letter to the Editor, objecting to the new English names introduced in the list of British land birds in No. 13. We would recommend the writer of this epistle to make himself a little better acquainted with the science of Ornithology, before he pretends to criticise or object to any innovations in that science, merely because they are innovations, or difficult for him to attain. We need offer no further observations on this letter, because, we doubt not, it will be ably replied to, by the framer of the arrangement of British birds, to whom it applies.

The third letter to the Editor, at p. 291, by the

Rev. F. O. Morris, was wholly uncalled for. It relates to the manner in which his *Guide* was noticed in the "Ornithological Retrospect," in the thirteenth number of the *Analyst*. We have already observed that the criticism of the writer of the Retrospect was unfair, but we cannot perceive the advantage Mr. Morris has derived from replying to the strictures, especially as he has made a somewhat bungled affair of it. If Mr. Morris were to mention as distinct species, all included as such by Gmelin, Lewin, Linnæus, Fleming, Montagu, and, above all, by Buffon and Bewick, his *Guide* would indeed be a blind one.—Amongst the Critical Notices in No. 14, is a review of Selby's *Pigeons*.

But as we have already occupied considerably more space with our critique of this interesting Journal than our limits can well justify, we must now conclude by again recommending this highly useful and entertaining periodical to the attention of all our readers. To the scientific Naturalist it is indispensable, and few will be found to answer the purposes of the general reader better than THE ANALYST.

Edinburgh Journal of Natural History and the Physical Sciences, with Cuvier's *Règne Animal*; by Capt. Thomas Brown, F.L.S., M.W.S., &c. Crown folio. Fortnightly Nos. 6d. col. 4d. uncol. 1835.

This Journal is of a two-fold nature. The first part of each number contains a variety of interesting miscellaneous matter, by the author and other scientific men. The second portion consists of a translation of Cuvier's *Règne Animal*, with additions by the author. It appears to be well trans-

lated, and the original matter (which is distinguished from the rest by being in a smaller type) is always valuable. Each No. contains a colored plate, with ten figures on each, on an average. These are well executed, considering the extreme cheapness of the work. It will be a valuable publication, and the only fault we can find with it, is its very large size, which will prevent its standing upright on any shelf.

A Few Observations on the Ornithological Periodicals.—Having thus brought our notices of works up to the present time, we conceive we cannot do better than conclude with a few remarks on the principal periodicals. With one exception, these have since been carried on with great spirit and regularity. Of the *Zoological Journal*, only five volumes have appeared, and it is announced that it is “complete”, or, in other words, discontinued. We regret that the periodical did not succeed, but, for reasons stated in our former notice of it (p. 50), are by no means surprised at the circumstance.—Of Hewitson’s *British Oology*, No. xxv was published in January; it is nowise inferior to its predecessors, for the accuracy of the delineations, and the tasteful manner in which the work is got up. This number opens the third volume, which will be, or ought to be, completed in November, 1837.—No. xxii of Partington’s *British Cyclopædia of Natural History* appeared in January. The work has advanced as far as the letter G, and we particularly recommend the article “GALLINIDÆ”, in this number, to the attention of our readers.—No. lvii of the *Magazine of Natural History*, for January, has reached us, in which, we regret to say, the only ornithological article is a short, though pleasant, paper on the Robin Redbreast. We have reason to know that

this formerly deserving repository now scarcely pays the expenses of paper, print, &c., simply because the interest and originality of its matter has so obviously and rapidly fallen off for some time past. The "facts fresh from the fields", with which it formerly teemed, and which must, we think, have brought it an extensive circulation, have now given place, for the most part, to dry, musty, closet-hatched speculations, interesting alone to the framers of such trash. We cannot imagine the cause of this deterioration, and whilst, with many of our ornithological friends, we sincerely regret the circumstance, we cannot help thinking, that, if a change for the better does not shortly take place, the *Magazine of Natural History* will, ere long, like the *Zoological Journal*,* attain a "sickly maturity", and be pronounced *complete*! We offer these observations, be it known, in a spirit of the most perfect kindliness and respect, on account of our esteem and regard for the learned and excellent Editor, Mr. LOUDON; but it would decidedly be to his advantage to present his readers with matter as interesting and valuable as he was wont to do, in the early part of his administration.

Captain Brown's *Edinburgh Journal of Natural History* continues to appear every other Saturday, and several numbers relating to birds, are already published. From a cursory view of the contents of the parts already laid before the public, we can pronounce the work to be well deserving the attention of the student, while its extreme cheapness will place it within the reach of the humblest class of individuals.—Meyer's *Illustrations* are making rapid advances, a large

* This journal, however, was intrinsically good, but was too dry and scientific to command anything like a remunerating circulation.

number of parts being published; but an inspection of the latest Nos. only serves to confirm the opinion we formerly expressed of the publication, at p. 95. For want of a better work, on the same scale, and with colored plates, it is, nevertheless, we regret to say, useful to the student.—As to Mrs. Perrott's wretched *Selections of British Birds*, the work is beneath criticism, and we have never taken the needless trouble of inquiring whether a second part of it ever dared to show its face. We are informed, that if our authoress should chance to meet with our little *Text-book*, we may expect a "Raven's quill" from her; but, unless she can manage Raven's quills with greater success than she has exhibited in her delineation of that bird, we have little to fear! Mrs. Perrott may, for ought we know, be an accomplished woman, but it is a pity but either she or her friends could have distinguished between the talents required for drawing as an amusement and as a profession.—No. xv of the *Analyst* will appear on the first of April.

The two gigantic ornithological periodicals now alone remain to be noticed. All we can at present say of them, however, is that of Audubon's *Birds of America*, No. LX has lately appeared; this series of plates, and the accompanying letterpress—entitled *Ornithological Biography*—will be completed in the early part of 1838.—Of Gould's unrivalled *Birds of Europe*, thirteen parts are published, and we understand that nearly the whole number of copies struck off (300) are subscribed for.

In the papers, we have lately seen advertised, the first volume of an "Entertaining Library of Natural History", entitled *Architecture of Birds*, price 1s. Now, from the title of this book, and from the circumstance of its being published under the superintendence of the Useful Knowledge So-

ciety, we came to the conclusion that the volume must be a new botch-work of Rennie's. But, judge of our disappointment, when we discovered it to be neither more nor less than the old *Architecture of Birds*, brought out in a new shape! We had anticipated the inconceivable pleasure of *cutting up* his *masonry* with as much diligence as he usually employs in pasting them together. *Mais n'importe!* we have resigned ourselves to our lot, and must do ourselves the justice to say, that we bore our unappreciable loss with the philosophic and praiseworthy magnanimity which became us as purveyors in the cause of NATURE.

We understand that a work called the *Ornithological Guide* is in the press, and will probably appear before long.

Some Remarks on our Review of Hewitson's "British Oology", at p. 87.—A short time since, we forwarded, to our friend WM. C. HEWITSON, of Bristol, the proof sheets of our *Text-book*; that gentleman objected to some points of our review of his *British Oology*, and intimated, that if it were published as there stated, he should be compelled to reply to it with more warmth than he should wish. Now as nothing could be further from our desire than to give offence, however slight, to any of our friends, and more especially to an ornithological one, we proposed to Mr. Hewitson to print, at our own expense, any reply that he might wish to make to our notice. The result is that we have received the following remarks, addressed, it will be observed, to our readers:—

“As Mr. Neville Wood has not only offered me a page in the Supplement of his *Text-book*, to reply to some remarks at p. 89, in his review of my *British Oology*, but has also proposed to print the

same at his own expense, I gladly avail myself of his liberality.

“Taking the list of our British birds, as he has done, at 300 (beyond its utmost limit), and allowing it possible to obtain the eggs of the whole (which, as every Ornithologist must be well aware, is totally impracticable), I must protest against his review as being anything but fair. The *British Oology* was commenced in April 1831, and with the March number of the present year (1836), 155 species will have been figured; the remaining 145 could not, therefore, by any calculation, spin out the work longer than the 1st of January 1841. I trust, however, long ere so many years of our lives have passed away, to take leave of my subscribers, and thank them for their many kindnesses. I am fully aware that the work has not gone on as regularly as I at first hoped, and that many delays have arisen—in the first place by my absence from home, in search of rarities for its pages, and in the second from my inexperience as a publisher. By my own calculation, however, the work will be concluded at a much earlier period. Of the 145 species which remain, I fear there is no chance of procuring the eggs of one half, at the utmost. I would, however, most gladly decrease the number of species whose eggs must remain unfigured, and for that purpose have requested the aid of my subscribers, on the cover of my recent Nos., where a list of my *desiderata* is also given. No exertion on my own part shall be spared to render the work as complete as possible.

“From what I have said, it will be seen that the work, instead of lasting till 1842, will be completed by the close of 1837.

“To the other faults pointed out by Mr. Wood, with regard to classification, I must plead guilty. At the beginning of the work Temminck's arrange-

ment was adopted; as it proceeded, however, and more light dawned upon the delightful study of Ornithology, it was necessary to follow, in part, a more modern system. This defect will be obviated as much as possible by an index at the conclusion of the work.

“ WILLIAM C. HEWITSON.”

We are perfectly sensible of the cogency of the above remarks, but, had we stated 1841, instead of 1842, as the probable time of the conclusion of the *British Oology*, our review had been perfectly fair. We calculate the list of British birds, in round numbers, to amount to 300 (there are actually more), and as 141, or nearly half, had been figured when we penned our notice, in five years, we might justly infer—making allowances for interruptions—that it would not be completed before the expiration of other five years. We could not of course be aware of the means Mr. H. possessed for procuring the eggs of rare birds; and as we understand that the egg of the Alpine Annet (*Curruca collaris*) will be figured in the May No., we had good reason to suppose that the eggs of all our other stragglers could be obtained. As it is, however, our review was not *quite* fair, and we sincerely hope Mr. H.'s review will set the matter in its right light. In conclusion, we have only to express a wish that our amiable and talented friend may continue laying his eggs as regularly and successfully as he has done for some time past.

ART. IV. *Habits of the Ivy Wren (Anorthura troglodytes, Morris).**

Within thy warm and mossy cell,
Where scarce 'twould seem thyself could dwell,
Twice eight, a speckled brood we tell,
 Nestling beneath thy wing!
And still unwearied, many a day,
Thy little partner loves to stay,
Perched on some trembling limber spray,
 Beside his mate to sing.

Anonymous.

SYNONYMS.—*Motacilla troglodytes*, LINN. *Syst.*—*Sylvia troglodytes*, LATH. *Ind. Orn.*—*Troglodytes Europæus*, CUV. *Règne Anim.*—*Anorthura troglodytes*, MORRIS'S *Cat. Br. Birds.*—*Analyst*, No. 14.—Common Wren, SELBY'S *Br. Orn.*—Ivy Wren, *Analyst*, No. 14.

THE Ivy Wren is little superior in size to the Goldcrested Kinglet (*Regulus auricapillus*, SELBY), and is common and indigenous in every part of Britain, being an extremely hardy little creature. Its bill is longer, and its tail shorter, than those of most other members of the family (*Sylviadæ*), and the prevailing color of the body is dark brown, and the eyes are bright and glistening. The tail is often held at a right angle with the body, and is always more or less *cocked*.

* This paper forms the article "Ivy Wren" in our *British Songsters*, and is here printed, at the suggestion of our esteemed scientific friend Charles Liverpool, Esq., M.D., as a specimen of the work.—N. W.

The haunts, habits, and general appearance of this species are wholly distinct from those of our feathered choristers which we have hitherto described. Most of the true *Sylviadæ* (Warbler family) are inhabitants of groves, or of furzy commons, and extensive heathy wastes, whilst the Ivy Wren frequents out-houses, heaps of wood, dead fences, and other localities assimilating closely with its own dusky colour. In such places it conceals itself sedulously throughout the year, and is mostly observed singly or in pairs. It is not remarkably shy, but it is fond of seclusion, always keeping close to the ground, flying low, and seldom or never perching on trees. It is extremely expert in threading the small interstices of the thick hedges and tangled brakes which are its favourite haunts, and is, on that account, difficult to be seen, though, when it *does* sally forth from its retreat, it often admits of a very near approach. The bowing of the head observable in some birds, may also be seen in this,—not so commonly as in the Robin Redbreast (*Rubecula familiaris*, BLYTH*), but much more frequently than in the Goldcrested Kinglet; it is most common in the breeding season, or rather when the males are in song, which is, in fact, the greater part of the year.

I am inclined to think that our tiny songster pairs for life, having frequently observed the same pair near a particular spot, in the depth of winter, and, on shooting one of these, the survivor has been seen hopping about the place alone, unceasingly uttering a shrill mournful kind of note, as if wailing for its deceased partner. It is probable that many of our resident birds, as the Robin Redbreast,

* I am at a loss to conceive why my talented friend, Mr. Blyth, has lately rejected his name *Rubecula familiaris* for the absurd repetition contained in *Erythaca rubecula*.—N. W.

Ivy Wren, Chaff Finch (*Fringilla cœlebs*, LINN.), and others, which have hitherto been supposed to select a fresh mate every year, pair for life. At least I am certain of this, that many of the pairs remain attached through the winter, though with regard to their coupling for *life*, it is impossible to speak with certainty.

The song of this bird is short in stave, harsh, and remarkably loud in proportion to the size of the body. It may perhaps be reckoned amongst the most trivial of our feathered choristers, but the song is more prized than it would otherwise be, on account of its being frequently heard in mid-winter, when a mere scream would almost seem sweet, especially if it proceeded from the throat of so tiny a bird as the Ivy Wren. And thus, insignificant and humble—with regard to musical merit—as are its strains, I always listen to them with delight during the dreary winter months, though we are apt to overlook them altogether in fairer times. In fact, interesting as are some of the habits of this species, and lively as is its general expression, the sight of it always conveys to one's mind the idea of cold, of snow, and of winter faggots, even during the ardent heat of midsummer. It often commences singing so early as January, mostly taking its stand on a heap of sticks, a log of wood, a hedge abounding with dead underwood, or the top sprig of a currant bush. Were it not that the bird is generally so conspicuous while singing, it would be difficult to persuade ourselves that the notes proceeded from a bird of such small dimensions, so loud and clear are they. It often carols also whilst flying from bush to bush, in the manner of the Warblers (*Sylvia*), and I have even known a male bird sing in the act of pursuing one of its kind along a hedge.

As a song bird, it is certainly not worth pre-

serving in a cage, especially as it is somewhat difficult to keep it in health for any length of time, though, with a little care, I have no doubt it would bear confinement very well, having myself had one in a cage nearly three weeks. This individual, which was caught in an outbuilding, during a severe storm in the winter of 1831, fed readily on bruised hempseed and bread, with the occasional addition of a few insects. It was not so wild as might have been expected, but was remarkably active, and in constant motion. Having thus ascertained that it might be preserved in confinement—in spite of what *compilers* may say on the subject—I restored it to liberty (“Nature’s greatest boon”), and had the satisfaction of seeing it come to be fed almost every morning in the winter, which convinced me that it was not displeased with the liberty I had taken of caging it for a few days.

The Ivy Wren (or at least those individuals which had not previously been coupled) pairs in February, and the nest is sometimes commenced so early as the end of March, though, if the spring be a backward one, not till the beginning of April. It is a curious and beautiful structure, and has ever engaged the attention of all who take the slightest interest in ornithological pursuits. The exterior usually consists entirely of green moss, with a few small twigs round the entrance; the inside is generally, though not always, lined with feathers. The situations in which it may be sought for are, the thatched roofs of outhouses, where it makes use of the holes excavated by House Sparrows (*Passer domesticus*, ALDROV.) and Spotted Starlings (*Sturnus varius*, MEY.), ivy-clad walls or trees, mossy banks, or low bushes. These are the usual sites; but the bird is not very nice in the choice of a situation for its nest. I have found

it on the branches of wall fruit trees, at the tops of raspberries and honey-suckles, amongst the dense foliage of the fir, in hollow trees, on the luxuriant Clematis on the tops and sides of arbours, in hop trellises, in tall thick hedges, and also, though not very frequently, in corners of hay-lofts, granaries, and similar places. I have likewise seen it under the thatch of hay and corn ricks. Few birds build in such a variety of localities, and fewer still display so much diversity in their architectural doings. It has already been observed, that green moss is the principal material of the nest in ordinary localities. It will be necessary, however, to notice, as briefly as possible, some of the varieties to which the structure is subject.

Of the above-mentioned deviations from the common locality, I have found the building in raspberry bushes to be the most common, and in such I have had frequent opportunities of observing the method in which the little architects go to work. It is a curious, and to Naturalists a well known, fact, that this bird varies the materials of its nest according to the situation in which it may happen to be placed*; and, accordingly, those built in ivy-clad walls or trees, or in mossy spots of any kind, invariably consist almost wholly of green moss outside. But, when it nidificates in raspberry bushes, scarcely a particle of moss is employed, the whole structure, both externally and internally, being composed of the *leaves of the raspberry*. This is one of the most extraordinary departures from the ordinary mode of nest-building with which I am acquainted; and, though three

* This circumstance is observable, to a certain degree, in the nests of many other birds; but in none is it so conspicuous as in the species now under consideration.

or four instances of it have fallen under my observation, it appears to have been noticed by no writer on British Ornithology, whose works I have consulted.

The course taken by this bird in building its curious piece of architecture, is accurately, but not very minutely, related by SELBY—undoubtedly the first authority on such subjects. In some particulars, however, the observations here detailed differ from those of that eminent Ornithologist. First a kind of cup, shaped like an ordinary nest, open at the top, is made; next the sides and roof, or "*dome*", are erected, and the whole exterior rendered smooth and even, leaving a small opening towards the top, and twining a few slender twigs round the entrance, to make the whole firm. The last operation consists in establishing a feather-bed inside, for the reception of the nestlings. When composed of leaves, however, it is lined merely with a few horsehairs, which is remarkable enough, as the leaves must obviously be much less warm and comfortable than soft moss; but the fact is certain. The raspberry leaves, when first laid, are always fresh and green, but become quite brown and autumnal in the course of a few days.

In the case of the Ivy Wren building in raspberry bushes, with the leaves of the same shrub, the color of the nest was certainly singularly well adapted to its locality. In one instance, however, I remember to have found it between two of the dense *flakes* of foliage (so to speak) of the fir tree, and composed exclusively of beech and oak leaves, with the usual intermixture of moss and slender twigs, which was evidently but ill calculated to conceal the structure. This specimen was loosely put together, and never contained more than three eggs, after which it was, not unwisely, deserted. On cutting off the branch on which it rested, the

nest—like a house built on the sand—fell to pieces. It was lined with horse hair and a few feathers. One that I once saw in a pear tree against the wall, was composed of the usual materials. It frequently builds also in the hollow and clefts of trees, or in banks, where the entrance is often so small as scarcely to admit even an Ivy Wren, and such situations generally conceal the snug little tenement from the keen eyes and merciless claws of the truant schoolboy.

But perhaps the most remarkable locality of the nest of this bird, which has fallen under my observation, was inside that of a Chimney Swallow (*Hirunda urbica*), under the eaves of a roof. It had evidently contained young, but these had escaped when the *double nest* was dislodged, towards the latter end of April. I have frequently seen this remarkable specimen, and, if I remember rightly, an account of it has lately appeared in the *Magazine of Natural History*, but I cannot at present refer to the exact place. There was nothing remarkable about the materials or structure of the nest; the marvel consisting in its extraordinary situation. In other instances, I have known it build under the thatch of hay stacks, where it was composed of the usual green moss, but mixed with hay, and *sparingly* lined with feathers. The whole is well concealed from view, being covered over with stalks of hay, without which precaution it would be a very conspicuous object. Twice also have I found it in hay-lofts, amongst heaps of faggots, and other wood collected for winter use. Both of these nests came to a singularly unhappy fate. In one, the usual number of eggs was laid, and, just when the female was on the point of hatching, the loft happened to be shut up for several days together; and as, moreover, there was no hole large enough to allow even an Ivy Wren to

pass, the necessary consequence was, that the bird was starved to death. When the room was reopened, I visited the nest, and, on putting my finger into the snug little structure, found the bird sitting. Unwilling to disturb her, I instantly withdrew my hand, but, to my no small surprise, the bird continued sitting. It was now clear that all could not be going on right, and, on extracting the little creature, found that it was in its last sleep. Just at this instant, the male entered at the recently opened door, and flew around me with the most evident signs of concern and distress. The female was in tolerably "good case", but her death was evidently owing to starvation. The young birds, five in number, and very lately hatched, were quite dead. Three eggs, one of which was addled, remained in the nest. The above anecdote proves how powerfully the organ of Philoprogenitiveness sometimes acts in this tiny creature.

The other nest, also built amongst faggots, in a hay-loft, was converted by the mice into a store-house for half-chewed corn, beans, peas, bits of apple, cheese, and sundry other delicacies; the eggs, seven in number, having, previous to the "furnishing" of the apartments, been duly devoured or ejected, and the dome of the nest almost torn off. This is a parallel case to that related in the article "GARDEN OUZEL (*Merula torquata*)", of the rats taking possession of the nest of that bird.

It is one of the disputed questions in Ornithology, whether the Ivy Wren does, or does not, line its nest with feathers. The solution of this "point in dispute" is sufficiently easy, and the only wonder is, how any one could have the smallest doubt as to the true state of the case. In this, as in many other arguments of a similar nature, both parties are right, as the nest is *generally* lined with a pro-

fusion of feathers, but there are many which do not contain a single feather; and here again we perceive the wonderful diversity displayed by the Ivy Wren in the framing of its beautiful piece of architecture. Most other birds almost invariably *line* their nests with the same materials; that is, the materials do not vary considerably in different specimens, though the exterior frequently varies according to circumstances. On referring to the beautiful and accurate work of my friend, Mr. HEWITSON, of oological celebrity*, I find my observations confirmed. He says:—"Ornithologists differ as to the lining of the nest of the [Ivy] Wren, some maintaining that it is thickly lined with feathers, whilst others deny that it has any in its composition. I have found it both ways, but cannot, from recollection, say which most frequently." It is difficult to imagine what can be the reason of this extraordinary variety in different specimens; and I do not pretend to draw any subtle inferences from the circumstance, but merely present my readers with the plain fact, which almost any one, residing in the country, may verify for himself.

The Ivy Wren often builds nests which never contain eggs. These are called "cock nests" in some parts of England, being supposed to be the manufacture of the male; here, however, they are more commonly known by the name of "fallow-nests", which is certainly a more appropriate designation. It is the opinion of some writers, that these "cock" or "fallow nests" are built by the male, for the purpose of drawing away the attention of nest-plunderers and other intruders from the real structure. This might be a plausible theory enough for the closet speculator and compiler; but as, in the biographies of birds, one fact

* See his exquisite *British Oology*, No. XXI.

is worth a dozen hypotheses, I shall proceed to state my objections to the above-mentioned supposition.

First, then, though I have frequently discovered these "fallow nests" near others containing eggs or young, yet I have observed that such have invariably been the first architectural attempts of young birds of the year, or else that they have been built as a winter retreat. Secondly, I have found, from personal observation, that *both* birds assist in fabricating the nest. And, in the third place, they are always constructed at the beginning, or towards the end, of the breeding season. For these reasons, I confidently deny that the untenanted nests are built by the males, whilst their mates are sitting. And, indeed, I may be allowed to ask, why should *this* bird alone possess so extraordinary an instinct for the preservation of its nest? I say *preservation*, because it has been argued that they are built with the view of preventing the discovery of the *furnished* or inhabited apartment; but I am of opinion that it would have exactly the opposite effect, namely, that of encouraging the bird-nester to continue his researches. Success naturally stimulates to further exertion, and so, if I am not greatly mistaken, it would be in this case. Accounting for the circumstance by supposing these dubious nests to be the productions of young and inexperienced architects, we find many parallel cases in other species. Nothing is commoner than to meet with half finished or clumsily constructed nests of the Garden Thrush, Garden Ouzel, Hedge Dunnock, Goldcrested Kinglet, and many others, which are invariably commenced very early in the season, as none of these birds make any use of their nests but in the breeding time. But the Ivy Wren often builds itself a dwelling in autumn, and lodges therein on cold nights. These are mostly built in the usual locali-

ties, though I once found one situated inside an old Garden Thrush's nest, in a Portugal laurel. Frequently also the nests in which one or two broods had been reared in summer, are tenanted every night throughout the winter,—whether by the old or the young birds, is a question more curious than easy to determine, on account of the difficulty—almost amounting to impossibility—of catching the birds at night. This I have frequently endeavoured to effect, but without success. It is probable, however, that it would be impracticable for all the young birds to stuff themselves into one nest, and thus, whether the summer fabrication be tenanted by old or young, the rest must find beds for themselves elsewhere. And this they do, either framing a new domicile, or roosting in holes of thatch, and, very commonly, in ivy-clad walls and trees, where in very severe weather, I have found them, at different times, frozen to death.

I have already expressed an opinion, that the Ivy Wren may pair for life; and this supposition is greatly strengthened by the circumstance of *two* birds generally (always?) assisting in the construction of the winter retreats. I have never known an instance in which the tenement was constructed by *solitary labor*, and I am enabled to speak the more positively on this point, from having frequently observed the operations of the skilful little architects, from behind a bush or tree. The winter nests seldom or never contain feathers, but in other respects they agree with the usual structures. I do not think it a *very* common occurrence for this bird to build in autumn or winter, as, if it can have its summer nest to lodge in at night, or if it can discover a suitable hole in a thatched roof, there is no necessity for fabricating a duplicate, but, in this neighborhood at least, it is not very rare.

One point, regarding the nidification of this

little songster, yet remains to be noticed. However its nest may differ in other particulars, it always agrees in this, that, around the entrance, moss and small twigs are invariably woven. Without this precaution, it is probable that the nest, being composed almost wholly of moss, would soon lose its beauty and symmetry, from the constant ingress and egress of the parent birds. This is so prominent a feature in the structure, that almost every one at all interested in this delightful branch of Natural Science, must have remarked it, though I believe it is mentioned by none of our ornithological writers.

The eggs, from eight to ten in number, are of a pure white, or sometimes dusky, spotted with reddish brown at the larger end. The circumstance mentioned by the older Ornithologists, and still echoed by the compilers of the present day*, of the Ivy Wren's laying eighteen or twenty eggs, is wholly incorrect; eight being, according to my experience, the usual number. There are sometimes fewer, but, I believe, never more. How this mistake, with regard to the number of its eggs, could possibly arise, it passeth my understanding to determine. Not only has it been repeated by authors of good repute, however, but most sagacious reflections have likewise been made on the circumstance; to wit, how so small a bird should be able to support so numerous a progeny, without ever missing an individual, and feeding them all in order; also as to the wisdom of Providence, and so forth—all which sage and profound observations were founded

* I know not what the *Prince* of Compilers may have pasted into his "faulty Dictionary" on this subject, as I never take the needless trouble of referring to his unskilful botchings and hashes, but some other book Naturalists are still endeavoring to perpetuate this error to the best of their ability.

on an erroneous basis. If half the time that is spent in such pseudo-philosophic conclusions from unproved assertions, were employed in observing and recording new facts, our acquaintance with the habits and general economy of the feathered race would be infinitely more extensive and accurate.

The Ivy Wren displays not a little pugnacity in its disposition, and, like that of all other birds, it is most observable in the breeding season. I well remember, on one occasion, that whilst walking with a friend, in a solitary wood, some years ago, a violent rustling of the leaves, in a neighboring bush, arrested our attention. On peering into the shrub, we found two of these birds engaged in such close and fierce combat, that nothing would have been easier than to have made them both prisoners. When parted, one of them appeared glad enough of a chance of escape, and sculked amongst the thick bushes, whilst the other, perched on a neighboring tree, poured forth the joyous song of victory. After the lapse of a few minutes, however, the vanquished was furiously chased through bush and brake, and the pursuit continued as far as the eye could penetrate. The conquered party appeared to have received some injury in one of its wings, and flew with difficulty. Probably it had been relieved of some of its quill feathers in the late conflict.

Though a very hardy bird, usually braving the rigors of our northern winters, yet, in extremely severe seasons, great numbers do perish, equal victims to hunger and cold. It is said to have been sometimes found dead in holes of thatched roofs and other places, and that several stow themselves into the same retreat, in order to keep each other warm; but I have never discovered more than one in a hole, though that pretty frequently. It often chooses its own nest for its sepulchre, but

perhaps as commonly selects the first easy spot that offers itself, as heaps of sticks or flower pots in outhouses, and other warm and sheltered situations. I have generally found them in a hard and frozen state, and, even though they may have lain in the grave several months, yet—provided the frost has not yet relented—the bodies do not exhibit the slightest symptoms of putrescence.

It is worthy of remark, that the Ivy Wren is a pretty constant attendant on the Coal and Marsh Tits and on the Goldcrested Kinglet, especially the latter, and, that where the one is, the other is almost sure to be also. Thus, whilst the Goldcrested Kinglet (*Regulus auricapillus*, SELBY) is exploring the branches and twigs of the mighty oak and the lofty pine, the Ivy Wren is equally busily employed in the humbler task of scouring the brakes and bushes beneath. Both species are remarkable for their activity, and are in constant motion.

The food of the Ivy Wren consists of various kinds of insects and their larvæ, and frequently also—which is not noticed by authors—of red currants, which it sometimes devours in great abundance in sultry seasons. Insect food, however, forms by far the greater portion of its subsistence, and fruit is probably only resorted to when its favorite fare becomes scarce. All birds are most eminently frugivorous during a long continuance of dry weather, owing, doubtless, to the extreme difficulty with which insects and worms are then procured, the latter then penetrating very deep into the earth for the sake of eluding the fervor of the sun's rays.

My Cambridge correspondent, HENRY BARLOW, Esq., appears to have noticed the Ivy Wren's frugivorous habits in confinement, though not in its

natural state. That gentleman has lately written to me as follows :—

“I have, for many years, possessed two or three Ivy Wrens, and find them by no means so difficult to preserve as is mentioned by some authors. But, both in summer and winter, a little care is requisite. In hot weather they require, besides their ordinary food, a constant supply of insects, and in winter, a considerable degree of warmth is at all times indispensable. It is partial to currants and elderberries, especially the former, but will not touch apple or pear.”

I am not aware that this species is subject to variety, and the sexes resemble each other so closely as to be distinguished only by the practised eye of the experienced Ornithologist.

ART. V. *On the English Nomenclature of Birds.**

THE English nomenclature of birds is the only department of Ornithology which has not received the attention it deserves, from the Naturalists of Britain. In the science, properly so called, we have Willughby, Latham, Swainson, Vigors, Selby, and others equally illustrious, while the descriptive or popular department has been no less ably filled by Pennant, Montagu, Mudie, Blyth, and other admirable writers and acute observers. But the vernacular designations of birds have been most ignominiously abandoned to popular caprice and absurd superstitions. Whether or not such a system—or rather such a *want of system*—can advantageously be permitted to continue, it is the intention of the present paper briefly to investigate.

Now, there can be little doubt but that it is very *convenient* to call a bird by a name by which it has always been known to the vulgar; but is such a system of procedure consistent with the principles on which philosophic science ought to be based?—Is it, I would ask, consistent with *any* principles?—Most assuredly not. But still I candidly admit, that the principles of English nomenclature, which I so ardently desire to see

* Read before the Worcestershire Natural History Society, to which body it was communicated at our request, by the Honorary Curator, Edwin Lees, Esq., M.E.S., &c.—N. W.

carried into effect, could not have answered the purposes of science during the Linnæan era. It would have been inconvenient to have given the name "Falcon" to all the members of the extensive Linnæan genus *Falco*, or indeed to any of the more comprehensive genera of the illustrious Swede;—as *Motacilla*, *Anas*, *Ardea*, &c. For these divisions could not properly be termed *genera*, but rather *families*. *Genus* is the name given by modern Zoologists to the smallest division, and each of these should obviously possess a distinct English appellation, to correspond to the Latin one. But to designate the *Falco chrysaëtos* of Linnæus the "Golden Falcon", or the *Motacilla rubecula* the "Redbreast Wagtail", would be absurd. The genera *Aquila* and *Falco*, *Motacilla* and *Rubecula*, are so entirely distinct, that the impropriety of arranging them in the same generic group is no longer doubted, and thus, though the classification of the great Linnæus is the most beautiful and simple *artificial* system hitherto promulgated, yet its inadequacy to answer the purposes of science at the present day, is sufficiently obvious, and becomes the more so the further we extend our knowledge of species. The propriety or impropriety of giving to each genus, of a system now universally abandoned, a separate English designation, is, therefore, of little or no consequence. It is now admitted, by all our most eminent Zoologists, that the genera of Linnæus rank more properly as families. These families are again divided into subfamilies, and the subfamilies into genera. It is with these last, as now restricted, that we shall have occasion to speak.

That great improvements, in the vernacular designations of birds, have been effected, since the time of the illustrious Willughby, is very evident. Ornithologists no longer disgrace their catalogues

by such absurd names as “Solan Goose”, “Pied Finch”, &c. But, though reform is gradually going on, yet there are no avowed and unerring principles by which the Ornithologist can abide, be his *system* what it may. Some few, indeed, appear to have had a glimpse of such principles, but, unhappily, have not invariably adhered to them. Thus Stephens, though he gives the generic name “Warbler” to most of the members of Latham’s *Sylvia*, terms the *Sylvia sylviella* (now *Ficedula garrula*, Blyth) “Lesser Whitethroat”,—making the same bird belong to two genera, as it were. But as such inconsistencies do not often occur in the *General Zoology*, this work may—setting aside the classification—be held up as a model for English nomenclature. Had Selby followed the example of Stephens, in this particular, the *Illustrations of British Ornithology* would have been faultless. Nothing can be more erroneous than the supposition that a work can be rendered unpopular by using proper names; for by far the greater number of our Naturalists consists of amateurs; and the Naturalists of this class will seldom take upon themselves to criticise the scientific portion of the work. In this department, they naturally look to their superiors for instruction, and would certainly have no objection* to employing any new English names that might be adopted by them, especially if these names were given on fixed rules and scientific principles. The works of the great Ornithologists are the text-books of the amateur Naturalist, and therefore whatever English

* Since writing the above, a distinguished field Naturalist, the Rev. W. T. Bree, has expressed to us (by letter) his disapprobation of our plan of altering many long established English names. We think, however, that were scientific Ornithologists invariably to employ the proper English names, in standard works, they would, ere long, come into general use.—N. W.

names are adopted in those works, will be used by amateurs, and finally by the public. It may, however, be argued, that systems are liable to constant change, and consequently, that no fixed nomenclature can be established. But I reply, that I do not wish nomenclature to be fixed, but merely that certain given principles should be adhered to:—namely, that each genus should have a distinct English appellation, and that this appellation can be applied to no other genus. That “bird” can never form any part of the name of a species, as “black-bird”, “red-bird”, “blue-bird”, &c.; and that a name applied to any genus can belong to no other genus, under any combination, as “Field-Wagtail”, “Water-Wren”, “Bull-Finch”, &c. That no unobjectionable name can ever be altered, priority being of the highest importance in these matters. That a species cannot be named from its abundance or scarcity in any locality, and that it be not named after persons, countries, towns, &c.

Now nothing would be easier than to carry such principles into effect, as has already been proved, in Nos. XIII and XIV of that admirable scientific Journal, the *Analyst*. And, moreover, it is sufficiently obvious that Selby, Mudie, and other Ornithologists, are aware that these rules should be attended to, but they labour under the groundless impression, that adhering to such rules will detract from the popularity of their works. It cannot, however, be proved that such has ever been the case. Mudie has made many alterations in the English names of birds, and perhaps few ornithological works have enjoyed more popularity than the *Feathered Tribes* of that delightful writer. Selby has effected yet greater changes in the same line, and more especially in the water birds, but his work has reached a second edition in a surprisingly short space of time, for a systematic

work. The most convincing proof of the good effects which these awful changes—as Mr. Strickland (see *Analyst*, No. xi) would term them—have had, may be found in the *Magazine of Natural History*. Very few here presume to speak of the Solan Goose, Water Ouzel, Water Hen, &c. &c. And this has been effected solely by the improved names having been employed in standard works*.

It is easy to foresee, that, before another century has elapsed, the state of our vernacular nomenclature will be very different from what it now is. At present, however, though some are willing to allow that the principle is good, yet they suppose it impossible to effect any material alteration in this department; while others, admitting the possibility of making the change, declare that no beneficial result can be derived from it, when introduced. The first of these objections, I have here, and also elsewhere, proved to be invalid. The second now demands our attention.

Is it then no beneficial result to establish a principle in a science, where popular caprice had before been the sole director? Is it nothing to facilitate the progress of the student in so extensive, so important and difficult a study as that of Nature†? These two reasons alone are surely sufficient arguments in favour of a change so small, so easily effected, and yet so important. It is, moreover, gradually winning its way into notice. My excellent

* In the index to Vol. VIII of *Mag. Nat. Hist.*, it was with no small pleasure that we found "Coalhood" employed instead of "bull-finch". "Kinglet" is also used; but, unfortunately, so is "Goldcrested Wren" too.

† Natural History has, until lately, been merely a science of observation. But, by the discovery of the splendid circular theory of Macleay, it has become one of the deepest philosophic induction. Consequently, it is a far loftier and more difficult study than formerly.

friend, Mr. Blyth, has already acknowledged the principle, and, as far as I am aware, intends to carry it into practice. But this accomplished Naturalist adopts subgeneric divisions, on which plan it is almost impossible to have correct English nomenclature. For, to follow out the principles here inculcated, each *subgenus* must have a distinct English appellation, on the plan before mentioned, that each of the smaller divisions, whether genera or subgenera, should have a separate English name,—supposing these subgenera to be defined in Latin. For where the subgenera are only marked by numbers or letters (and these are more properly termed *sections*), as in the system of Temminck, it is obvious that English names cannot be given to such divisions. But in Mr. Blyth's subgenera the case is different. Each of these is marked by a third Latin name, and, consequently, a third *English* name should also be introduced. A few instances will best explain my meaning. Mr. Blyth's *Fringillinæ* are as follows:—

FRINGILLINÆ.*

Haw Grosbeak	Fringilla coccothraustes vulgaris.
Green Grosbeak	———— chloris.
Common Linnet	———— linaria linota.
Mountain Linnet	———— montana.
Mealy Linnet	———— canescens.
Rose Linnet	———— pusilla.
Siskin Goldfinch	———— carduelis spinus.
Common Goldfinch	———— elegans.
Whitewinged Chaffinch	Spiza cœlebs leucoptera.
Mountain Chaffinch	———— montana.
House Sparrow	Passer domesticus.
Tree Sparrow	———— arboreus.

Now, though I am far from wishing to call in question the accuracy of the classification of the above group, yet the English nomenclature is not so precise as might be desired. For where is the

* Extracted from a letter dated August the 18th, 1835.

English name that corresponds to *Fringilla*? "Grosbeak" corresponds to *Coccothraustes*, "Linnet" to *Linota*, and so on, but there is nothing in English answering to *Fringilla*; while in the genus *Passer*, the name "Sparrow"—which is equivalent to *Passer*—is given. In order to have made the English and Latin designations agree, they should have been as follows:—Haw Grosbeak Finch, Common Linnet Finch, Goldwinged Siskin Finch, Whitewinged Chaff Finch*, &c. But this method is so clumsy and inconvenient, that, though the subgeneric system possesses some advantages, yet it could, on this account, scarcely answer the practical purposes of science. And then, others might institute *sub-subgenera*, alleging that in some cases, the distinctive marks are not sufficiently evident to warrant even a subgeneric division. The *Linaria cannabina* and *L. pusilla* might be taken as an instance of this. I think it will be found, in the end, that generic divisions are quite sufficient, without establishing any groups of lower value. Be this, however, as it may, what I wish to contend for is, that the English names should correspond to the Latin ones.

As yet, no book has appeared which may be invariably relied on and confidently referred to as a guide to English nomenclature, either in theory or practice. With regard to the water birds, Selby has succeeded tolerably well in giving to each genus an English name, but in the land birds—which are more apt to receive popular and erroneous designations—he has entirely failed. The various members of the *Sylviadæ*, he indiscriminately terms Chats, Redstarts, Warblers, Wrens, &c., without the slightest regard to generic divi-

* Had Mr. Blyth written *Chaff Finch* as two words, instead of one, his English names of this subgenus had been right.

sions; and actually gives the name "Wren" to three birds, belonging to two genera, whilst there is not a single *Anorthura* in the family! It is difficult, nay impossible, to imagine what benefit can result from giving "Owl," "Wren," or any other name, to five or six perfectly distinct and well defined genera. What should we think of the Naturalist who did likewise in Latin? and who told us that though he gave the name *Strix* to the whole of the *Strigidae*, yet meant to divide the family into seven genera?—Although this may appear to be carrying the matter to an extreme—and I admit that it is an exaggeration—yet the principle is the same, whether we look to the Latin or the English appellations. Both belong equally to science, and both must be made to correspond.

It is strange that the principles here briefly adverted to, have not received the attention they deserve, from the Naturalists of our own country, as they have long been known and acknowledged by the French Ornithologists. But the alteration must and will be effected, notwithstanding the opposition it may meet in its progress. New discoveries or new principles—whatever be their intrinsic value—are ever viewed with a suspicious eye, and are seldom appreciated during the lives of their propounders; but it is to be hoped that the Gentlemen of this prosperous and flourishing Society will not allow the subject to pass unnoticed. If any one would be kind enough to transmit to me remarks in favor of, or controversial to, the opinions herein expressed, I should feel sincerely obliged to him, and would give all such observations due consideration.

I am of course fully aware that the desultory, and perchance tedious, observations, here thrown together, can in themselves be of little value, but I trust that the mere introduction of the subject to

the attention of the Society, will not be without its use, and that they may be instrumental in causing more talented individuals to pursue the same track, on an equally sure basis.—With the most sincere wishes for the advancement of the Society, I have the honor to be, Gentlemen,

Your obedient servant,

NEVILLE WOOD.

THE END.

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